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INVENTORY CONTROL IN THE DEPARTMENT OF DEFENSE

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BEFORE THE

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CONTENTS

Opening statements: Page
Senator Glenn 1
Senator Wilson 6
Senator Sasser 27

WITNESSES

TUESDAY, OCTOBER 27, 1987

Stephen M. Ryan, Counsel, Committee on Governmental Affairs 8
Charles A. Bowsher, Comptroller General of the United States, U.S. General Accounting Office, accompanied by Marty Ferber, Senior Associate Director, National Security and International Affairs Division, and Dick Helmer, Group Director, National Security and International Affairs Division 11
William Howard Taft IV, Deputy Secretary of Defense, Department of Defense 31

ALPHABETICAL LIST OF WITNESSES

Bowsher, Charles A.:
Testimony 11
Prepared statement 67
Ferber, Marty: Testimony 11
Helmer, Dick: Testimony 11
Ryan, Stephen M.:
Testimony 8
Prepared statement 57
Taft, William Howard, IV:
Testimony 31
Prepared statement with attachments 107

APPENDIX

Prepared statements of witnesses in order of appearance 57
Letter from M.L. Jenkins, Director, Repairables Policy and Systems Office, Department of the Navy, to Space Microwave Lab, Inc., June 4, 1985 163
"Army Inventory Management: Inventory and Physical Security Problems Continue," GAO report, October 1987 164

INVENTORY CONTROL IN THE DEPARTMENT OF DEFENSE

TUESDAY, OCTOBER 27, 1987

U.S. SENATE,
COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 9:08 a.m., in room SD-342, Dirksen Senate Office Building, Hon. John Glenn, Chairman of the Committee, presiding.

Present: Chairman Glenn, Senators Stevens, Sasser, and Levin.

Also present: Senator Wilson.

OPENING STATEMENT OF CHAIRMAN GLENN

Chairman GLENN. The hearings of the Governmental Affairs Committee will be in order.

Today, the Governmental Affairs Committee will begin a review of very serious potential problems regarding purchasing and inventory control over what are called "secondary" items at the Department of Defense. Secondary items are all of the replacement parts and spares for tanks, planes and ships; the uniforms and commodity items, personal gear, and medicines needed by our servicemen and their dependents.

We began this process by asking two very fundamental questions: First, is DOD potentially wasting the taxpayers' money by purchasing literally billions of dollars—that is "B"—billions of dollars worth of goods which do not contribute to force readiness or the personal needs of servicemen and dependents and for which there is no projected demand? Second, do we know where and in what condition the goods DOD buys are stored so we can efficiently furnish them when they are truly needed?

The evidence on both points is not reassuring from what we have found so far. Overall, DOD's inventory of secondary items has grown from $43.4 billion in 1980 to $90 billion in 1986, more than doubling in 6 years. During the same period, the growth of secondary items that make up the category of equipment called "long supply"—these are items which are not part of war readiness stock, and for which there is no known present requirement—has grown from $10.2 billion in 1980 to $29.5 billion in 1986. I want to emphasize these figures came from DOD reports themselves; they are not fictitious figures.

We view the growth in this long supply as bad growth. It is deeply troubling and deserves our closest attention. Now, I do not want to ever deny our service personnel every item they need in

peacetime to be prepared for war and those items they need for a decent life in peacetime. We cannot afford, though, to waste a single dollar, let alone $30 billion, on goods which are not needed and do not contribute to the military sustainability and livability of the Armed Services.

The second and related problem is DOD's problem managing and accurately accounting for this greatly expanded inventory. The supply system of the three services and DLA must manage the Herculean task of receiving, stowing and issuing millions of items each year. The enormous, unprecedented and ultimately unsustainable growth in DOD secondary inventory has simply outpaced and overwhelmed our depots, warehouses and supply system. We have spent billions for big ticket items—the tanks, the planes, the ships—but our supply train has been unable to cope with the new demands made upon it.

It is an enormous job. Let me read from a background report that I was reading this morning that the staff had prepared. Let me read one paragraph out of it just to give you the perspective on what an enormous problem it is. DOD issues more than $100 billion of material to its customers annually. Logistic support is provided to worldwide DOD activities 7 days a week, 365 days a year. No private sector organization is comparable in terms of the scope of activity, volume of business and geographical disbursal. In fact, the value of DOD's supply inventory, not counting the inventories of operating forces, is roughly 10 times higher than those of the top five Fortune 500 corporations combined.

Now, that gives a little bit of a feel for the problem DOD is up against. But having said that, we still must do our best in managing inventory.

At the request of myself and Senator Pete Wilson, the GAO has completed a series of specific studies where inventory samples from the services have been independently counted, and the picture they paint differs significantly from that posed by DOD statistics. Comptroller General Bowsher is here to tell us that based on GAO's work, they believe DOD's inventory accuracy is substantially less accurate than DOD's 95 percent accuracy figures.

For example, one measure of inventory accuracy is to check the percentage of times a physical count of the inventory will match the number recorded on the inventory control records. For the commands GAO visited, the results were not reassuring. In the Army Tank and Automotive Command, the records and inventory agreed only 44 percent of the time; for the Navy Supply Center at Norfolk, 69 percent of the time; for the Air Force Logistics Command, 68 percent of the time; and for DLA, the Defense Logistics Agency Depot in Mechanicsburg, Pennsylvania, 63 percent of the time.

This is not a satisfactory batting average, but it does reflect that DOD's warehouses are groaning with more items than can be adequately managed with our current resources. GAO has found instances where causative research, the process for evaluating and solving why the variances occur, is directed more at managing the indicators than managing the inventory. For example, we will hear today how 11 Army truck axle assemblies, two TOW missile carriers and a million dollar Navy radar set turned up missing when

physical inventory records were compared with accounting records. But then record adjustments simply made these problems disappear.

In addition, it is clear that the physical security of DOD's inventory has been lax. Unbelievably, GAO investigators have been able to enter and leave DOD warehouses in Europe, crammed with aircraft spares, without challenge. In other instances, Stinger missiles have been kept in substandard facilities with "Stinger" painted on the side, not in secure ammunition bunkers where they should have been.

Senator Wilson and I had a press conference the other day in which we went into some of the Stinger problems briefly.

While these new reports are significant additions to our knowledge, over 347 reports have been issued on this subject by GAO and DOD between 1981 and 1985. DOD corrective actions have apparently not yet resolved these difficult management problems which leave us wide open to fraud, waste, and abuse.

Let me briefly give three concrete examples to be discussed today that have been tracked by GAO and by our staff to illustrate the problems of inventory growth and lack of control. I mentioned, the Stingers and I will give a little more detail on that example.

In September 1986, the Army Missile Command asked the 200th Theater Army Material Management Center in Europe to return 24 specific Stinger missiles for test firing. Stingers, I think most people are aware, are man-portable missiles designed for anti-aircraft use, used on the battlefield, shoulder fired. Because of the potentially deadly terrorist threat these weapons pose, control of these Class 1 munitions is supposed to be very tight. The 24 missiles were requested by serial number. Because not all Army units were controlling Stinger missiles by serial number, the Center had difficulty locating the specific missiles. That was in September of 1986.

By March of 1987, only 9 of the 24 were located. By May of 1987, an additional six were located. I then requested a complete review of the matter, and after conducting a total inventory of all Stinger missiles in the European Theater in response to my inquiries, the Army advised me that 100 percent of their missiles were on hand, with six additional missing missiles located and three others having been transferred to the "Black World," as we call it, to classified programs. And we cannot track them beyond that point because they are in that kind of a program.

I would not say that the missiles which were transferred to the black world went to Iran, but we do know that Stingers have shown up in Iran. I am not implying they came from a classified program, but we have a news report here from the Islamic Republic news agency talking about a parade in Iran in which Stinger portable anti-aircraft missiles were displayed. Talk about a hazard for our airports. If any Stinger missiles are in the hands of terrorists, you can imagine what would happen if someone decided to use one on a 747 or some plane on approach into one of our major airports. It would be a major tragedy.

The Army has now admitted that the problem in locating specific missiles by serial number occurred because they were accounted for by production lot number and not by serial number. Further,

the Army admitted that its policy for recording inventory information for small missiles was ambiguous with multiple and contradictory inventory control requirements. There were two Army regulations in effect. One required small missiles to be accounted for by production lot number, the other by serial number. Apparently, most Army inventory personnel applied the regulation which required an accounting by lot number. The problem with this control is that many missiles share the same production lot number; whereas, serial numbers are unique to each individual missile. Obviously, control by serial number is superior and would have enabled the Missile Command to locate its missiles with ease. If a terrorist manages to obtain a missile, control by serial number might possibly enable the Army, by being able to track the carrying case and things like that, to more swiftly and accurately trace it to the point where it was stolen.

As a result of my inquiry, the Army took immediate action to clarify its regulations and to require that all small missiles be accounted for by serial number. We consider this to be a significant improvement in this particular case.

Lack of control over Navy repair items is another example of poor inventory practices. The Navy has a potentially serious problem in accounting for and controlling items which are sent for repair to commercial contractors' plants and other military services' repair centers. Apparently, these items are not adequately tracked by the Navy's inventory system. For example, based on documentary evidence—and I have a letter here for the record later [1]—it appears that in 1985, the Ships Parts Control Center admitted in letters sent to contractors and other military repair centers that it had no accountability or control over the Center's repairable items in these non-Navy facilities. The Center asked the contractors and other military services to provide the Navy with the necessary information as to what Navy-owned items were at their facilities for repair.

That is a little bit like a situation where your bank says we do not remember how much we loaned you and asks you to provide the information.

As a result of the information received, the Center then adjusted its financial records by $620 million and suffered a net loss of $464 million, with no assurance, actually, that such adjustments were accurate.

When staff queried the Navy on this situation, it was told that there was no loss of $464 million, that it was simply a "paper adjustment" to bring the Navy's records in line with the official inventory records maintained by the contractors. That is very poor policy to have contractors maintain the official Navy inventory records for expensive items sent to them for repair. I cannot say with any certainty the Government was ripped off, but there was an opportunity for this to happen in the course of these transactions. I hasten to add the Navy has actions under way which they say will correct the problem by 1990. It seems to me that is a long time to get corrections going.

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[1] See p. 163.

Finally, just as another example, the DLA stocks a metal bar which can be placed on police and emergency vehicle roofs to mount lights. Staff might display one of these bars. We happen to have one here which they brought from the DLA warehouse the other day. It is not a tremendously complicated thing. It is used to mount the lights on on top of police cars and emergency vehicles.

Because of an upturn in demand for the bar in three quarterly periods preceding a decision on how many to purchase, a large quantity, 4,297, was purchased in February 1986 at a cost of $37.73 per unit. The purchase consisted of about 1,350 to cover the inflated estimated annual demand, and the remainder to cover the demand for the period from the time a resupply requirement is generated and the time the goods are received from the contractor; and to buy this took 538 days. Now, that is 18 months to buy what is a very simple thing that could be fabricated in any machine shop.

Why it takes that long, to purchase that particular item, I do not know. But since the time of the procurement, demand has dropped, and DOD now has enough of these bars to last an estimated 6 years. Boxes of these bars are crowding the aisles of a DLA warehouse in Mechanicsburg, Pennsylvania, that was built approximately 40 years ago, but is one of the newest buildings at this facility. This example illustrates DOD's problems with overly long lead times and over-purchasing which unnecessarily overcrowd warehouses with goods that have no impact on force readiness or sustainability. The dedicated warehousemen at this facility informed my staff that so much equipment was piled in the aisles of this warehouse that it had become difficult to move a forklift through most aisles. Industrial accidents were also up, productivity reduced, and the ability of these workers to perform was reduced.

I wish I could conclude this rather lengthy opening statement here with a rosy, light-at-the-end-of-the-tunnel conclusion; these are difficult problems which require consistent care and attention by military and civilian managers. It will require technical solutions such as better computer systems, bar coding and automation rather than the current mechanization of most warehouses. Now, only a few years after this build-up the President wanted, and that I support, it will be a Hobson's choice to put our resources into these areas rather than hardware. I am pleased that Deputy DOD Secretary Taft will give us DOD's thoughts on these issues later today.

It is a big problem, and we want to get into it. GAO has done a Herculean job on this, and we will be looking forward to their testimony in just a few moments.

Senator Wilson has also been a leader in this area. He chaired an Armed Services Committee task force that held a series of hearings a year ago and looked into some of these problems on DOD management of supplies, and has done a great job in this area. He is to be complimented for it.

Pete, we welcome you to our hearing this morning and look forward to your statement.

OPENING STATEMENT OF SENATOR WILSON

Senator WILSON. Thank you very much, Mr. Chairman, both for your kind words and also for your leadership. Specifically, I think the hearings that you are conducting this morning are of great importance, and I am grateful to you for your initiative.

I think the testimony that we will hear today will be both informative and useful in the Committee's ongoing investigation of the Department of Defense's inventory management problem.

I think that in your excellent opening statement you have focused on much that continues to be wrong. I think you have properly laid emphasis on the fact that it continues. There have been literally hundreds of internal audits, reports by Inspectors General of the different services, and yet this problem or this whole set of problems continues. And as evidenced by the charts to your left, it seems to be growing.

Now, you and I have both, I think, laid emphasis on the fact that this is not the kind of system that is geared, or designed, for pure economic efficiency. We know that. It needs to be decentralized in order to be ready at hand. Readiness is the business of the Armed Services. This equipment is not designed to simply languish in a warehouse all locked up, unavailable to those who will need it.

On the other hand, the fact that it is required to be decentralized and the fact that it is the largest system of its kind in the world—in fact, the largest in the world in the statistics that you gave, using as a reference point the inventories of the Fortune 500 corporations—makes clear that we are dealing with what is admittedly an enormous challenge.

To be fair to the Services, to the Defense Logistics Agency, to the Pentagon, this is the largest and necessarily most decentralized inventory that exists anywhere in the world, at least in the free world. I can only hope that the Soviets are incurring similar problems.

The fact of the matter is we cannot continue to do business as usual. And as I have indicated in the past, notwithstanding the tremendous increase in technological competence, notwithstanding the excellence of the Services in many ways, it seems that today, as even in the time that I was on active duty, that there is something repugnant to the military mind about being a bean-counter. And we are not very good at it. We have got to get much, much better. There is a need to know what we have, both for purposes of saving the taxpayers' money, particularly in a climate when we are seeing the Defense Department to take a disproportionately large hit to achieve deficit reduction. There is really no way that we can simply shrug and say we will continue to do business-as-usual.

It is also true, as we indicated in our news conference last week, that one of the most serious implications of the failure of the defense inventory system to adequately account for, and to adequately arrange for, the physical security of sensitive items, is that they can fall into the wrong hands. The example, which Senator Glenn gave is by no means far-fetched. It is a frightening example but one that is entirely plausible, especially so in light of the revelations that such inadequate physical security continues to persist.

The reason for these hearings, to put it simply, is that there must be a change. It is not sufficient that a number of Inspectors General, internal auditors have found what has been wrong and recommended change. The change has not yet occurred, certainly not on a scale required to really put an end to the kinds of concerns that properly are shared, not only by those making these reports—and I congratulate the excellent work of the General Accounting Office—but to allay the concerns of those within the Department of Defense who understand what this portends, in terms of readiness, in terms of cost, and in terms of the danger to the public if sensitive items fall into the wrong hands.

I commend Secretary Taft for his willingness to be here and participate in what is a shared responsibility. I commend him for being ready to participate in a joint solution. I think, Senator Glenn and I, are among those who, as he has stated, have been willing and, in fact, even eager to see the country's credibility restored as we rebuild neglected defenses. But putting more money into defense is not the answer by itself. We have to see to it that the dollars spent are spent wisely. These charts raise serious questions as to whether or not they are spent wisely. And the revelations produced by GAO just on an anecdotal basis—not to say the kind of systematic examination that I think is required—obviously call for not only sustained attention, but for a concerted effort to make those changes, which however many times they have been discovered simply have not been instituted as permanent, systemic changes.

So, Mr. Chairman, I thank you for your leadership. I am going to be introducing legislation tomorrow based on some of the findings that GAO has made, some of the recommendations that have been made. It is beginning on what I think has to be an ongoing and urgent attention to this whole set of problems.

Thank you very much, Mr. Chairman.

Chairman GLENN. Thank you, Senator Wilson.

We are on a vote. We will spell each other on the vote. Senator Wilson will go vote, and then we will not have to stop the hearing. I will go when he comes back.

Before we get to Comptroller General Bowsher on this, I would like to have staff present some information on these charts. Steve Ryan of the Governmental Affairs Committee staff has done a lot of work on these, and I would like to have him present the information. With him is Carl Bogar, from the General Accounting Office, who has been working with us and doing a superlative job. We appreciate his help in preparing the background information for this hearing and being our liaison with GAO.

Carl, we appreciate your efforts on this very much. You have been doing an outstanding job for us. I wanted to point that out in particular since your boss is here today to testify.

Steve, if you will proceed with outlining what is on these charts for us, we would appreciate it.

TESTIMONY OF STEPHEN M. RYAN, COUNSEL, COMMITTEE ON GOVERNMENTAL AFFAIRS [2]

Mr. RYAN. Thank you, sir.

Mr. Chairman, I am here to present a brief introduction to DOD's secondary item inventory growth. The purpose of this short presentation is merely to set the stage for the dialogue with Comptroller General Bowsher and Deputy Secretary Taft.

Secondary item inventory is a term of art which applies to such things as repair parts, supplies, and clothing, as opposed to principal items in the DOD inventory, such as tanks, ships, and aircraft. It is important to consider the problems DOD is experiencing in managing its secondary item inventory in the context of the large growth in these items that has occurred since 1980.

DOD's inventory contains an estimated 4.5 million different types of items. DOD warehouses, particularly at the wholesale level, are now filled over capacity. DOD's secondary item inventory at the wholesale level has grown, as you can see on Chart I, from approximately $43 billion in 1980 to approximately $90 billion in 1986.

Chairman GLENN. Let me interrupt just one second. In case those figures are not visible, the left axis here is in billions of dollars, starting at $40 billion and going up to $100 billion here. I doubt if you can see those figures from the back of the room.

Go ahead.

Mr. RYAN. They roughly doubled during those six years. Staff has prepared a series of these charts to illustrate the growth and some of its implications.[3] These charts have been discussed with knowledgeable officials from DOD and GAO staff who agree that the information contained therein is accurate.

Chart I displays the value of the secondary item growth, and that growth is from $43.4 billion in 1980 to $89.6 billion in 1986. This doubling represents an approximate 106 percent growth rate during the period. The increase itself totaled $46.2 billion, making the increase greater than the 1980 inventory figures themselves.

The second chart shows the amount of DOD's inventory that is in a category known as "long supply." Long supply is an informal DOD term for stock that has no present peacetime or wartime requirement. As the chart illustrates, the value of items in long supply grew from $10.2 billion in 1980 to $29.5 billion in 1986. This growth of approximately $19.3 billion represents an increase of approximately 189 percent from 1980.

I would like to add that it is generally agreed between GAO, DOD and Committee staff that growth in long supply is "bad" growth. When these long supply stocks were purchased, they were presumably purchased for a specific need; that is, DOD does not have the authority to intentionally order stock for long supply. Stock, however, ends up in that category because someone made a mistake and ordered too much or circumstances significantly changed to reduce the anticipated demand for the item. Some long supply stock will be used in the future; other stocks are held for

[2] See p. 57 for Mr. Ryan's prepared statement.
[3] The charts referred to start on p. 61.

contingencies, although there is no predictable demand or quantifiable future contingency need for the goods at this time.

Chairman GLENN. Steve, would you give some examples of that, because it is almost incomprehensible. We have $30 billion in stuff out there that has no peacetime use and no wartime use.

For example, what types of things? Did we change requirements where there is stock that is no longer needed because of a change in a program?

Mr. RYAN. One example, Mr. Chairman, would be that the Air Force currently has on order approximately $600 million worth of goods that will not be needed either for the peacetime operation of the military or for the wartime stocks. These goods are mostly black boxes and electronic equipment that the Air Force has decided now are surplus to all of their needs and are, in essence, in a category known as potential excess.

Another type of long supply is categorized as economic retention stock. Stocks in this category will eventually be used. An example would be the light bar that was displayed. We ultimately will use those in the out-years in 1990's. But normally, we would not purchase those light bars until we needed them. The problem is if you purchase to many, too early you may never use them.

Chairman GLENN. I think probably Secretary Taft will go into much more detail on that later on, I presume.

Mr. RYAN. Finally, there is approximately $5.5 billion this year that is being held awaiting disposal from the system. For the six years from 1980 to 1986, we averaged approximately $5 billion leaving the system each year in the disposal category.

Chart III–A compares the dollar growth of long supply inventory and approved force acquisition objective inventory. AFAO, the approved force acquisition objective inventory, is good inventory. It is the inventory needed to meet normal peacetime operating requirements for the next year and all of our war reserves that we would need should a war break out.

When one looks at the actual dollar value of the approved AFAO versus long supply, it demonstrates that long supply has gone from approximately one-third the value of AFAO in 1980 to approximately one-half in 1986.

Chart III represents the same thing as the dollar chart that is presently being shown. What it does is display a percentage comparison of DOD secondary item inventory growth from 1980 to 1986. In essence, it's merely another way of showing the dollars, but shows the trend in a direct sense. This chart is a percentage representation where the 1980 figures for the AFAO of approximately $30 billion and the long supply stocks of approximately $10 billion were made to equal 100 percent. The AFAO inventory has grown approximately 90 percent during the 6-year period, while the long supply inventory grew approximately 189 percent, which results in that upward trend which is not in dollars but simply is a representational trend.

Chairman GLENN. Let me interrupt, if I might, because I do not want people to be misled by this. You are comparing percentage growth, which expands these lines tremendously. It is like putting a multiple on them.

What you did was take the 1980 lines off this left chart, and you said regardless of whether the column representing AFAO is higher or the column representing long supply is higher, the 1980 figures are used as a base line. Then you show the percentage growth for AFAO and for long supply and compare them, which obviously means that your lines representing long supply growth, are going to go way up in comparison to the lines representing AFAO growth.

It is a fair comparison to make, but I do not want anyone to be misled into thinking that things have gotten quite as disproportionate as that right chart indicates. Just be warned that it is a percentage change from a base line starting in 1980. It is not actual dollar figures. The dollar figures, still, over here on the left, are up in the many tens of billions of dollars in both areas. So I think it is a fair comparison to make, even though it does expand the comparison.

Mr. RYAN. Finally, Charts IV and V, which are being shown now, illustrate some aspects of the demand and availability for secondary items during the period of 1980 to 1986. Chart IV on the left shows that during the 1980 through 1985 period when secondary item inventory was growing by over $46 billion, the number of demands or requests for secondary items remain relatively constant or static. The number of demands increased approximately 11 percent from 1980 to 1984, from about 29 million to approximately 32 million. But by 1986, the number of demands had dropped back to approximately the same level as in 1980.

Finally, the last chart, the supply availability chart, displays the supply availability of secondary items. Supply availability means the item is generally available in the inventory when there is some demand for it. From 1980 to early 1987, supply availability remained relatively constant as well. The percentage of demands satisfied was approximately 87 percent in 1980. By 1987, demands satisfied had decreased a few percentage points to 84.8 percent. Both of these charts, which are currently being shown merely illustrate that demand and availability remained relatively static despite the significant increased investment.

That, Mr. Chairman, concludes my presentation.

Chairman GLENN. Thank you very much, to you, Steve, and Carl, both for the presentation.

We will get to the main part of the morning's hearings, the Honorable Charles A. Bowsher, Comptroller General of the United States, U.S. General Accounting Office.

Mr. Bowsher, we welcome you again to our hearings, and the gentlemen with you. Would you care to introduce the people with you at the table.

TESTIMONY OF CHARLES A. BOWSHER, COMPTROLLER GENERAL OF THE UNITED STATES, U.S. GENERAL ACCOUNTING OFFICE,[1] ACCOMPANIED BY MARTY FERBER, SENIOR ASSOCIATE DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, AND DICK HELMER, GROUP DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

Mr. BOWSHER. On my left here is Marty Ferber and on my right is Dick Helmer, group director on this engagement.

Chairman GLENN. Good. We welcome you and look forward to your testimony.

Mr. BOWSHER. Mr. Chairman, we are pleased to be here today to discuss inventory management in the Department of Defense. In the last several years, we and DOD audit agencies have issued numerous reports addressing serious inventory management deficiencies, such as inaccurate inventory records, poor physical inventory controls, and inadequate controls and accountability over Government property furnished to contractors.

Our current work shows that deficiencies continue. Specifically, DOD does not have accurate data on which to, one, assess how well its inventories are managed; or, two, whether its decisions on what to buy or how much to buy are based on valid data. For example, the Army command we reviewed reported to the Army and DOD an inventory record accuracy rate of 91 percent. According to DOD policy, only variances of $800 are considered in determining inventory record accuracy. Our independent tests showed only a 44 percent accuracy rate when all inventory variances were considered. Stated another way, the inventory records for 13,400 of 23,800 items did not agree with the physical counts. This same command also reported to the Army and to DOD only a small fraction of the actual inventory adjustments it made during the fiscal year 1986. Reporting all adjustments provide a much better indicator of inventory accuracy and should be reported.

Last year, DOD revised its 1982 5-year improvement plan to address many specific inventory management problems. Also, after we issued our overview report on supply system problems in May of 1986, DOD identified, for the first time, inventory controls as a DOD-wide concern in its annual Federal Managers Financial Integrity Act report to the President and the Congress. DOD needs to place increased emphasis on inventory management, particularly because of the inventory growth over the past few years, which has added to the previous problems.

The value of DOD's inventory of secondary items, such as repair parts and supplies, is estimated at about $90 billion, as was shown on your charts, and this is about twice as large as it was five years ago. This inventory may be more than DOD can efficiently manage and, in some cases, more than it needs.

For example, one, there has been a significant increase in the amount of secondary item inventory excess to requirements. At the beginning of fiscal year 1987, these excesses were valued at $29.5 billion, up from $10 billion in 1981.

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[1] See p. 67 for Mr. Bowsher's prepared statement.

Two, DOD has bought large amounts of repair parts in support of newly fielded systems, which are not needed to support the systems in the first few years of their operation.

And, three, DOD warehouses are being filled to capacity, resulting in DOD relaxing its policy of not disposing of any item supporting a weapon system still being used.

Mr. Chairman, as you know, we are completing reviews on a number of inventory management issues and will be reporting on them over the next few months. Today, we want to concentrate on three areas: one, the accuracy of the inventory records; two, the effectiveness of the research to identify the causes of inventory discrepancies; and, 3, the physical protection of these DOD assets.

First, let me talk about the inventory accuracy. Concerning this issue, my detailed statement discusses several problems with DOD's current accuracy reporting system, including DOD policies that allow some data to be incomplete. Overall, we found that inventory accuracy is much less than DOD's reported accuracy indicates. While DOD reports a 95 percent accuracy based on the value of items inventoried, its systems do not currently report on the quantities of items it has on hand compared with the quantities it should have. Our analysis found that the quantities can be inaccurate to a large degree.

We also found examples where the services' practices merely make the accuracy indicators look better without contributing to improved management. In many instances, the services attempt to explain or "resolve" and, therefore, not report inventory discrepancies by going back in their records several years to reverse a previous discrepancy. For example, an October 1986 shortage of 11 Army truck axle assemblies valued at $141,726 was resolved by reversing a June 1980 overage of 25 axles, even though the overage had been verified. Such reversals, while making the reported accuracy indexes look better, are really improper and do not improve management.

Because of the problems we found, management cannot rely upon the reported inventory accuracy as a basis for identifying potential problems and taking corrective actions. For example, because of the high level of inventory inaccuracies, buying commands could be making the wrong decisions on what to buy and when, or may not be able to provide the items needed to meet DOD's missions. However, because of inventory growth, this latter concern does not appear to be a significant problem. At this time, the question is whether DOD can meet its needs more efficiently and effectively.

To get a representative view of the inventory accuracy, we conducted our own statistically valid inventory counts. Our results show that inventory accuracy can range much lower than the accuracy reported by DOD. Also, we developed data on quantity accuracy--something that DOD does not currently do but should. We believe that samples and analysis such as ours provide a more representative indication of accuracy, and thus serve as a better basis for management to assess what actions are needed to improve inventory management.

If I could for just a minute have Marty Ferber here discuss this one chart that we have up there.

Mr. FERBER. Mr. Chairman, because of the problems that the Comptroller General just discussed, we felt that the inventory accuracy as reported to DOD was not representative of their actual accuracy. In order to get a representative view, an independent view, we conducted statistically valid samples and did our own count on each of the items we reviewed.

The chart up there is sort of a synopsis of what we found. Based on our samples, we took three measures of inventory accuracy. Records overall, the one you cited earlier in your statement, compares how often the records are accurate compared to what is on hand. It is a very basic measure of just how accurate the records are.

More important, though, would be the quantity accuracy; that is, what is the percentage of assets on hand compared to what the records show?

Then, finally, from the quantity accuracy, you can extend that out to get how accurate your records are in terms of dollar value, quantity inaccuracies times the value.

Currently, only the Air Force is even attempting to do quantity accuracy, but based on our work, we have been told now that all the services will move to doing quantity accuracy.

Chairman GLENN. Let me interrupt just a second, if I could. If I understand, your check on the left column is as to whether the records they were keeping were accurate? In other words, only 44 percent of the time, the top figure, did the records match what was on hand. Is that correct?

Mr. FERBER. That is correct. What we did is we looked at the record, and then we also allowed for what we call in-flow documentation.

Chairman GLENN. The records could be off by one or a million. That would still throw it into the negative column on the record accuracy category.

Mr. FERBER. That is correct.

Chairman GLENN. Okay. Then the second column, recorded quantity, is that where you measure how accurate the records are, is that correct?

Mr. FERBER. That is correct. That is the percentage of assets on hand compared to what the records show.

Chairman GLENN. Okay. So if I am reading that properly, 64 to 99 would be your error rate. By that, you would mean, then, that they would not know by a third, plus or minus, what they had. Is that correct?

Mr. FERBER. Well, let me take, for example, the 64 percent meant that the quantity was accurate.

Chairman GLENN. I see.

Mr. FERBER. Sixty-four percent of the assets on hand. The difference could be up or down. You have problems if you have too much and do not know it, or if you do not have enough and do not know it. But that includes what is called both gains and losses.

Chairman GLENN. Okay. What I stated a minute ago was not the way it was, then.

Mr. FERBER. No.

Chairman GLENN. I am glad you corrected it. Thank you.

Mr. FERBER. What I would like to do is just walk you through what that quantity accuracy shows, because it is a little different for each one of the services.

In the first two, the Army and Navy, we stratified our sample by dollar value; in other words, from the lower dollar value items up to the higher dollar value items, and then drew statistics for each one of those classes. In the Army, we showed the range of 64 to 99 percent. We did not find a definite trend; in other words, there was both high and low accuracy at both the low end of dollar value items and at the high end of dollar value items.

Disturbing us a little bit was that the highest two dollar value categories in the Army had 64 and 70 percent accuracy levels.

In the Navy, we also did a stratification by dollar value. However, there we did find a trend. The higher dollar value items were generally at the higher accuracy level, and the lower dollar value items had the lower accuracy level. Still, when you reached assets worth $100,000, the accuracy was still a little below 90 percent.

The Air Force data we show was taken from their sample. They are the only service to have actually conducted a sample over the last two years. They stratified their sample by location. They have five logistic centers. The range we show there was the high and the low from the air logistic centers. The other three were all in the 70 to 80 percent range.

At DLA, they are in the business of managing low value consumable items. Therefore, rather than stratifying our sample by dollar value, we stratified it by class of items. We found a very high accuracy rate, in the mid to upper 90's, on such classes as industrial, construction, and electronics. We did find relatively lower accuracy in the general category, and then the figure with the lowest accuracy was in medical, which we believe is a particular problem because of the susceptibility to pilferage and other diversion.

That is a quick summary, like I say a synopsis, of what our overall statistics show.

Mr. BOWSHER. Senator Wilson, as I explained as I was going through my statement here, we have issued many reports on this inventory management issue. But today, we are reporting on three areas: the accuracy of the inventory records, and that is just the area we have been through now; and then two more is the effectiveness of research to identify the causes of these inventory discrepancies; and, three, the physical protection of the DOD. So I will continue, then, with my statement on that.

Turning to the issue of research—which is supposed to identify the causes of inventory discrepancies so management can take corrective action—we found that the research within the services and DLA is not effective because, one, it sometimes is done just to make the inventory records look better; and, two, is not getting at the causes of these inventory variances. Some DOD officials are now questioning whether such research should be done at all, especially in light of the continuous reports by us and others that much of the research that is performed is ineffective.

Now, while eliminating research may be an outcome of such questioning, there is currently no substitute for it as a tool to improving inventory management. What is needed is for DOD to

direct its research efforts at identifying the systemic causes of the inventory problems. Currently, some of the research is directed at eliminating a physical inventory variance that would have to be reported, rather than at determining the patterns of causes of inventory discrepancies that can be used as a basis for addressing basic control system weaknesses. We identified numerous instances of this during our field work.

For example, what the Army's New Cumberland Depot considers a "resolved" variance illustrates the ineffectiveness of causative research. On January 29, 1986, the depot reported that research showed that the loss of two TOW missile vehicle support assemblies, valued at $15,000, was due to posting an erroneous gain of four assemblies on April 15, 1985. However, in previously explaining the April 15, 1985, transaction, the depot said that the gain was partially due to posting an erroneous loss of three assemblies on August 18, 1984. In both cases, the research process was terminated without further investigation to determine the reasons for these posting errors. The inventory turbulence for this item will likely continue unless the cause can be determined.

Now, if I could just move to the importance of good physical security here. Finally, turning to this area, a prerequisite of good inventory management, we testified last year that we made undetected entries into Army and Air Force supply warehouses in Europe. In our current work, we again found inadequate security at some areas we visited.

For example, in the Army, the physical security deficiencies we noted applied not only to repair parts, but also to sensitive missiles that could be targets for theft by terrorists. The range of security deficiencies included inadequate and improper storage facilities, inoperative detection devises, poorly equipped and trained guards, and poor accountability for and control over these sensitive items.

In the Navy, we reviewed security starting at base perimeters and working towards storage and maintenance facilities. We found problems in several areas including protection of restricted areas and control of commercial vehicles.

At DLA we observed inadequate storage and protection over pilferable items and noted that other identified security concerns did not receive adequate management attention.

In all cases, the services and DLA are taking corrective actions in response to the security shortcomings that we noted.

Senator, in our individual reports we are making specific recommendations to the Services and DLA; and in my detailed statement, we discuss actions the Secretary of Defense should take. DOD needs to develop better policy for assessing inventory accuracy and also needs to place more emphasis on identifying the systemic causes of these inventory problems. These changes, together with general improvements in financial management and internal controls, will contribute to improved inventory management in the Department of Defense.

That concludes our statement. We are prepared to answer any questions.

Senator WILSON. Thank you very much, General Bowsher, and Mr. Helmer and Mr. Ferber.

Let me ask you to clear up one thing that I really do not understand. Based on your statement, the Department of Defense currently is reporting a very high degree of inventory accuracy, and yet your studies would indicate that the actual records reflect a much higher degree of inaccuracy.

What is the explanation for that basic disparity between that?

Mr. BOWSHER. Basically, there are two or three things that are causing it. One is that when they find an inventory difference, when they go out and take inventory, they have a system now where they go back and look for reversals. They are not supposed to go back more than one year to see if at a previous time when they took an inventory they made an adjustment that they think now maybe was not right, and, therefore, it should not be considered as part of this adjustment.

But what we found is they go back sometimes as much as five years, and do reversals. So what they do is if they can find the right amount of reversals, they then come up and say, well, the inventory shortage or difference that we found this time does not have to be reported. And we just think that is a very poor policy because the shortage or the problem that was found before was verified and should not be reversed.

They have pretty good procedures for when they actually take a count. They also check the paperwork to see that they do not have a cutoff problem and things like that.

Now, there is no question you might have a box of something that has been misplaced or something like that, but to do all this reversing so that you do not have to report the inventory differences seems to us that you are managing the indicators, literally, more than managing what is the problem with your inventory system. So we think that is a big part of the problem.

The second part is that if anything falls under the $800 threshold, then it is not reported. So they have a threshold that reduces the number of inaccuracies.

What we believe is that you should have a reporting system that tells you exactly what is happening out there, and the best way to do that, we believe, is a sampling approach that we used. We understand that many of the people in DOD are looking at that; some have decided to use it; and it gives you a much better basis of what is your inventory accuracy.

Senator WILSON. We have encountered some instances that at least give rise to the suspicion that the age-old practice of borrowing gear is still very much alive and well as a military tradition. By that I mean that one unit will find that as it is facing an inspection, and their inventory records do not reflect the physical inventory. Therefore, they borrow missing items so that, come inspection day, everything seems to be in order. Then on a subsequent inspection day, the unit that borrowed it gets back the items, and they all pass inspection; but there has been a little sleight of hand.

That is something that you might laugh at as boys being boys at the supply sergeant level, but it seems to me to be an endemic problem that reflects a much more serious problem. There also seems to be a degree of inconsistency in the performance between the various Services.

Is there some way that we can really prevent that? I cannot help wondering what the effect would be if there were a general order put out in each Service that prohibited the borrowing, that actually flatly forbade one unit making equipment available to another without a direct order.

Now, that may seem petty, and perhaps at a battalion level it is; I don't know that it happens above small units. I can recall from my own experience that it did happen at the small unit level. But what I am suggesting is that, consistent with your own findings, the causative research seems to be based more on explaining away than actually finding root causes and changing them.

There are two ways that you can go about dealing with that problem. It seems to me the most significant way is to have some kind of a physical accounting process that prohibits it. In the absence of this method, the old-fashioned way is to simply have command emphasis upon accountability as an important function of command. But for all the attention that has been given the problem by all of the Services, all of the audits, all of the IG reports, the one thing they cannot deal with is the fact that there is a constant rotation of personnel; it is inherently a factor that undermines accountability. On an army base you do not have a company commander for 30 years. You do not have a supply sergeant in the same company for 30 years.

I am not suggesting necessarily that longevity at a post would cure the problem. It would not necessarily. But it does, I think, point up the fact that you do have not only this huge system that is tremendously decentralized, but you also have a constant turnover in personnel.

Again, looking at the small unit level, it used to be that a company commander taking over from his predecessor would sign for an inventory. But he had better be very careful before signing to make certain that the records actually reflect what was there. Because, if on a subsequent inspection, some equipment turned up missing without explanation, that could be a very serious thing for that company commander and for his supply sergeant.

I do not know that that still exists. It was considered a pretty heavy and awesome threat to career promotion in my time in the service. I do not know whether it still does. I know that above a certain level, the same onus does not exist, the same apprehension does not exist, to correct those deficiencies.

Two questions: One, what would the impact be of a general order prohibiting inter-unit transfer? And, two, what kind of physical and/or accounting requirements can really deal with—whether it be sloppiness or something worse—the kind of thing that is causing this disparity?

Now, you talk about causative research, and I think good causative research can turn up what has been wrong. I am even more interested in preventives.

Mr. BOWSHER. If I can just make one observation, and then I am going to ask Dick to comment because he has done most of our field work. What we are reporting on here today, this $90 billion, is at the wholesale level, and these numbers do not get affected by what is happening out at the unit level, as you illustrate. But I would like Dick to comment on your question, because there is an-

other 50 or 60 billion dollars of inventory out there. In other words, you have really have about $150 billion of inventory.

Dick, if you would comment on that.

Mr. HELMER. Senator Wilson, I think the military's regulations really do prevent by policy the interchanging of equipment between and amongst units. However, again, those things, as you well know, have not been enforced. I think we need more command attention to make sure that those regulations and policies are enforced.

Secondly, you pointed out with Senator Glenn in your press conference last week a good example of the lack of accountability in the Stinger missiles. Stinger missiles are required to be accounted for at the unit level by serial number. When we went out and inventoried those items, we found a great deal of disparity between the serial numbers on the records and the missiles that were on hand.

While there was a missile for every serial number, again, there is no way to tell whether or not the unit had the missiles that they were supposed to have. So in those particular cases, you have the potential, at least, for the types of things that you mentioned happening. If someone would be short of a missile, they can be switched around because the serial numbers do not keep track of them the way they should.

Senator WILSON. Let me just pursue that point. When your investigation disclosed that units had the requisite number of missiles but the wrong serial numbers, is there any central registry that indicates who should have the missile with that number?

Mr. HELMER. No, sir, there is not above the unit level. That was one of the problems. The Missile Command was accounting for their missiles by missile production lot number rather than by serial numbers. So the only one that has the serial number control is down at the unit level which has the missile.

Mr. FERBER. But effective next month they will start controlling them by serial number. There will be a centralized system then.

Senator WILSON. It would seem to me that with certain items there is sufficient sensitivity to warrant the extra step that would be involved. I would also think, without knowing—and you correct me if I am wrong—that it would not be that difficult to computerize the accounting in a way that would greatly enhance the accountability.

Now, again, you have got to safeguard your computer system to see that there is limited access to it, just as there should be limited access to those sensitive items. But without that, it seems to me you are not going to get a handle on this.

Mr. HELMER. That is correct. It is very easy to computerize those records, but it is very difficult to have them be accurate, just like it is very difficult to have your inventory records accurate.

Senator WILSON. Well, it is difficult if people simply ignore the regulations.

Mr. HELMER. Well, it is difficult there, but it is also a problem where you have missiles moving around quite a bit. And if you do not keep good track of them and you do not track the serial number accountability all the way from the unit back up to the Missile Command, for example, you are going to have another

problem where you are going to have a computerized listing that is inaccurate.

Senator WILSON. Go ahead. I did not mean to interrupt you, but go ahead.

Mr. HELMER. Well, again, as I was explaining, Senator, if the Missile Command now starts to automate their records of Stinger missiles, for example, by serial number, the real challenge is going to be to make sure that those records are kept accurate as those missiles move throughout the DOD system. It is a very difficult thing.

Senator WILSON. So you say that beginning next month there is going to be a central registry. I take it it is going to be computerized?

Mr. HELMER. There will be a central registry. Whether or not it will be computerized, I do not know right now.

Mr. BOWSHER. And they are going to control it by serial number once they found out the problem.

Senator WILSON. What recommendation would you make beyond what is contemplated for both the safeguarding and improving the accountability of the supply of sensitive items like the Stinger missile?

Mr. HELMER. Well, I think the easiest recommendation and the one that makes the most sense would be for the Army in this particular case to start enforcing its own regulations. We found units that were supposed to be taking monthly inventories and checking the serial numbers against their missiles just were not doing that. Again, it gets back, I think, to what you have termed earlier command apathy.

Senator WILSON. Now, was that a universal practice or, more accurately, a universal omission? Or were some units doing it and others not?

Mr. HELMER. It was not universal. There were some units that were doing a good job, and there were others that were not.

Senator WILSON. What consequences flowed from the fact that some were not?

Mr. HELMER. Well, I cannot really answer that question, but I would say basically probably not too much.

Senator WILSON. I think maybe that is part of the problem, too; that there is no particular cost attached to failing to follow the procedures that lead to the kind of sloppy inventory practices that permit the Army to not account for even some of its most sensitive equipment.

Your investigation thus far has not yet really looked at things like the results in an officer's fitness report as it relates to his stewardship of the equipment charged to him.

Mr. HELMER. That is right, sir. We have not looked at that.

Senator WILSON. Well, Mr. Chairman, it seems to me that it is basic function of human nature that we can be enjoined not to do certain things; and yet if there is no penalty that attaches to the failure to perform the regulations, there is not much likelihood that we will attach great importance to their observance. And that was a fact that seems to leap out from some of the earliest investigations, whether they were at the level of battalion supply sergeants' derelictions. Obviously, in the case of your namesake—

Shawn Helmer—from Fort Lewis, a man of great ingenuity and great energy, my impression is that not only was he not penalized, but that there was at the very least a winking, and almost a commendation of his performance. Perhaps in the great tradition of supply sergeants and cumshaw artists, his energy and achievement was surreptitiously rewarded. But what it really means is that somebody else was not doing their job.

So, Mr. Chairman, it seems to me we really need to look at the practice of holding specific officers accountable and specific NCOs accountable in a way that apparently has not been done, although I harken back to the time that you and I were in the Service. It seems to me there was a great deal of emphasis laid upon it.

Mr. HELMER. Right now, Senator, the maximum liability that an accountable officer has for the property under his control when he leaves his unit is one month's pay.

Mr. FERBER. Senator Wilson, if I could add a footnote, in 1983 we made a recommendation that inventory material accountability be included in the performance evaluation of both military and civilian personnel. In DOD's update of their five-year plan this month, they now cite that recommendation and say that our prior 1983 review will serve as a basis for them designing a system to accomplish what you are suggesting. This is something we recognized four years ago. This month they are starting action on that.

Senator WILSON. This month they are starting action on it?

Mr. BOWSHER. They are putting it into the five-year plan.

Mr. FERBER. Yes. The update to their five-year plan was dated October 6th. They now cite that as something they are going to do.

Senator WILSON. Well, I have a feeling that perhaps, as much as we are touting some of the physical security and computerized accounting recommendations that are being made, that may prove most effective, what we are really talking about is the absence of the kind of command responsibility that is required to prevent these derelictions. I think that if derelictions begin to show up on fitness reports, if they begin to prejudice an officer's career potential, then he is going to give inventory management a much greater degree of attention than in the past. It is going to result in much stricter procedures.

Thank you, Mr. Chairman.

Chairman GLENN. Thank you, and I appreciate your chairing while I was gone to vote here.

Senator Stevens has joined us. Do you have any opening statement before I go ahead with questions?

Senator STEVENS. No. You go ahead with your questions.

Chairman GLENN. All right. Fine.

Based on the information, it appears there has been an unprecedented and unsustainable growth in secondary item inventories. Has DOD simply bought too much secondary item inventory during the past six years?

Mr. BOWSHER. Well, it would look that way. In other words, when you see a doubling of the inventory and then a tripling of the long supply items, the items that do not have known requirements, why, you have to come to the conclusion that possibly more was bought than was needed.

I think you get this from two or three reasons. One is that there is a great tendency to over-support newly fielded systems, and we have had a lot of newly fielded systems go into place in the last few years. This is where the industry has a great deal of input as to what should be part of the spare parts and what should be bought out, you might say, at the beginning.

Then I think the second thing is these inaccurate records have got to be contributing to buying too much. Because when you do not have accurate records, you are bound to be buying too much of some items. Therefore, I think, we are seeing the results of this over-buying in the inventory growth figures. But I think where you have got a very large inventory now—and as Dick and the people at GAO who have gone out and done all this field work found, the warehouses are filled to capacity. Everybody is worrying about how they are going to handle all this material. So I think you have got a lot of unneeded secondary inventory out there. There is just no question about it.

Chairman GLENN. This obviously has a budget impact, just from the figures we had up earlier on the charts over here. Please display the first two charts again.

Has buying too much had a negative impact on DOD's ability to accomplish their peacetime and wartime missions? Has it gotten that serious?

Mr. BOWSHER. Well, I suspect if it has not it will because of the budget constraints. In other words, we are now at the issue of affordability. What we can afford? And we have more demands than we have budget dollars, I think, in the next few years. So if you have all this inventory and are going to continue this kind of growth, why, then it seems to me that you are going to affect the rest of the military forces and the budget.

This is an area where there are big dollars involved, and hopefully a program can be started to bring down these inventory levels.

Chairman GLENN. Well, there are different categories of things that they need in their secondary inventory. When your people look at all this and make your own assessment of it, do you feel that they need everything that is in the secondary inventory?

Mr. BOWSHER. Well, obviously they do not because you are getting much of this build-up in the long supply. In other words, you have many items there that just do not even have any single movement in a year's time, let us say. So it looks to us that they are buying things that they either do not need—and I was surprised how many items had no movement at all—or they are buying too much of something that has little movement. It is going to take many years, if ever, just as your illustration with that emergency vehicle light bar, to use that inventory.

In the meantime, you have got to spend a lot of money maintaining it, moving it around, counting it and everything else. So when you have over-supply, you also incur what I call a lot of maintenance money just maintaining that large inventory.

Chairman GLENN. Your people talked to a lot of folks at the working level. What reason do they give for the growth in the long supply figures?

Mr. BOWSHER. Well, I think, again, it gets back to a certain extent to forecasting what is needed. I think that is one of the things that Defense ought to look at very carefully.

You obviously have forecasting systems that are cranking out erroneous requirements which are causing over-buying.

The fact is that you had large budgets in the early part of this decade and there was money available which had to be used. I think that money was used to buy a lot of unneeded inventory. There was a sense that the readiness was being impacted because of lack of some secondary items. So I think they went out to correct those problems, and I think what we have seen is that we have built up a lot of inventory.

If you remember your previous charts, Mr. Chairman, the demand there did not improve all that much; it did not go up that much.

Chairman GLENN. That is right. That is something I wanted to comment on, the availability and so on. Where are the other charts? Put the other one up, too.

Those are basically flat, both of them; as far as the demands and availability, they are basically flat. So the large additional stockpiles of material apparently did not result in additional availability when needed.

Is the forecasting of what is needed done on too short-term a basis? The reason I ask that is because of our light bar example. DOD bought 4,300 of these light bars and now has a six-year supply on hand at Mechanicsburg, I guess it is.

Mr. BOWSHER. Mechanicsburg, yes.

Chairman GLENN. These light bars are used for MP vehicles and emergency vehicles and so on. We happen to have that as an example. The purchase apparently was done on a trend at the moment. And it takes a year-and-a-half, apparently, to contract for the light bar—538 days, I think, was the figure I read earlier—which I do not understand. I think any machine shop could put the thing together pretty rapidly if it was required.

Are these buys made on a short-term forecast that is too short sometimes, or what?

Mr. BOWSHER. Well, there are probably several reasons. That is a good example. I used to have a client in the private sector that made those things. You can produce those things in a couple days.

Chairman GLENN. I hope we are not uncovering a conflict of interest here with GAO.

Mr. BOWSHER. No. [Laughter.]

I did that work back in the 1950s. I do not even know if they are still in business.

You know, to buy six years of supply of that kind of item and to take 18 months to complete the purchase or to get it is just a sad situation, I think.

Dick here has looked at some of this work.

Mr. HELMER. First of all, Senator, there are 4.5 million items in the supply system like that, and you have to go ahead and take a look at each one individually to find out what caused over-buying or under-buying. However, I will give you an example, I think, that illustrates some of the problems we are having.

As of March 31, 1987, the Air Force has on order almost $1 billion worth of excess repairable items. These are items, the black box, electronic types of things for aircraft, some of which cost over a million dollars, and these are excess to all their known requirements.

Now, the reason that some of those things happen is because the system that determines the requirements which generates the buy orders for these items is so inaccurate that $1.4 billion worth of the $2.4 billion worth of requirements were wrong, in error.

Chairman GLENN. Well, follow through on that. What is the system that leads up to that, then?

Mr. HELMER. Well, they have a DO-41 system which is the Air Force Logistics Command's requirement system for reparable items in the Air Force. That system said that they had a need for $2.4 billion worth of reparable items as of March 31, 1987.

Now, when they scrubbed that system and those requirements down to get rid of all of the erroneous data, they scrubbed $1.4 billion worth of their requirements. That still left them with almost a billion dollars worth of excess reparable items on order.

Chairman GLENN. What happens to those? Are they going in the long supply, then, that will never get used?

Mr. HELMER. Yes, sir.

Chairman GLENN. We just threw a billion dollars down a rat hole because we did not have a system that was more responsive short-term?

Mr. HELMER. Yes, sir.

Mr. BOWSHER. A certain portion will.

Mr. HELMER. They will go into long supply. In fact, I think the Air Force people that were talking with Mr. Ryan and Mr. Bogar of your staff, said that those items were referred to as long supply rather than as excess.

Chairman GLENN. Did any of these long supply items result from a change of requirements? In other words, we had a new black box replacement, state-of-the-art replacement, so we wound up with too many of something that has been replaced by something else? Is that part of it?

Mr. BOWSHER. It is part of it.

Mr. HELMER. Well, it certainly could be. You know, we found also that we have spent about $800 million on the defensive avionics system for the B-1B bomber. That system is unstable. A portion of that $800 million will have been wasted because those parts will have been redesigned at some point in time.

Chairman GLENN. If our inventory accuracy is as poor as GAO is reporting, there are two unavoidable implications. First, we will buy far more than we need to ensure that we have enough to meet demands. The second item then would be in a wartime scenario we may wind up missing crucial consumable or repair items which could ground aircraft, keep ships in port, prevent tanks from taking the field. Is that a correct assumption?

Mr. BOWSHER. That is a correct assumption. In other words, you can have both of those problems resulting from inaccurate records if people take action based on those inaccurate records.

Chairman GLENN. One more question and then I will turn it over to Senator Stevens.

GAO and my staff have provided examples of DOD losing accountability for many expensive high dollar value items, and that is unconscionable, obviously. One example from the GAO report is that TACOM, the automotive and tank command's records were wrong on 11 of 15 items valued over $50,000. Now, my staff has been focusing upon the Navy's write-off of approximately $464 million in items sent to contractors for repairs, as I mentioned in my opening statement, because the Navy lost accountability for the items. The Navy actually went out and had to ask the contractor that was doing the business how many of the Navy items they had on hand and were working on, because the Navy did not have accountability for what they had sent them. We have a letter to the contractor asking exactly that.

Is this as serious a problem as it appears, and does it represent real losses of equipment as opposed to just paper problems of where the stuff happens to be at any given moment?

Mr. BOWSHER. Well, it could be either, Mr. Chairman. But I think the illustration is one that brings up another very significant point; that is, the reliance, lots of times, on the contractor's data and records.

In fact, I think that is one of the problems in the forecasting up front. I think Marty Ferber can describe it a little better, but when you are bringing in the new equipment here, lots of times the services are relying to a great extent on the contractors as to what should be bought, what is needed, and everything like that. And that seems to be one of the major problems because a lot of the items being bought are not needed. A good example of this is what is happening over in Europe, the Army has shipped back to the States large quantities of parts that were not needed to support new weapons systems fielded there.

Marty can talk a little bit about the contractor's influence on the forecasting and the buys here.

Chairman GLENN. Briefly, because my time is up.

Mr. FERBER. Initially, when DOD buys a weapons system, they are relying on the contractor's initial estimates of spare and repair parts they will need. The example that Mr. Bowsher mentioned was that the Army last year shipped more than 500 milvans of items from Germany back to the United States that had been sent over in support of new weapons systems. They did not need them in the first two years of the systems.

When we discussed that with the Army, they told us they did not have the sophisticated engineering talent in order to scrub down what the contractors said they needed, and they were basically going out and buying what the contractors had recommended.

Chairman GLENN. Senator Stevens.

Senator STEVENS. I am just sitting here thinking about the time I was in this room eight years ago when we were trying to find out why ships would not leave port at Norfolk and why we had a red line average of less than 40 percent of our front line fighters. And we found that we did not have the parts and did not have the inventory to maintain our system. That was not paper; that was actual. They were not there when someone reached for them.

Now, you are telling us, aren't you, that the computers tell you that the parts are not there? Isn't that right?

Mr. BOWSHER. Sometimes in the accuracy of the counts, that is correct.

Senator STEVENS. Well, you did not count over a million parts in the one inventory, I am sure of that. You relied on a computer.

Mr. BOWSHER. On the inventory records, that is right.

Senator STEVENS. When I was in Korea last December, I was talking to the people who were running the new computer program for one of the Army depots. They mentioned to me that for some period of time the records were going to be inaccurate because they did not go back and computerize the parts that were there. They computerized the new ones as they came in. Did you find that?

Mr. BOWSHER. Did we?

Mr. HELMER. No, sir, we did not find that in this audit.

Senator STEVENS. But if they just computerized new parts and you compared that to what was actually there in terms of——

Mr. BOWSHER. We would have determined that. If we went in to review them and we found out that some unit was converting from one computer system to another and was only computerizing the new units, our people would not have picked that up.

Senator STEVENS. Well, this was not from one to another. This was a new system.

Mr. BOWSHER. All right, a new system.

Senator STEVENS. They had not had it before, I was told.

Mr. BOWSHER. Yes. If I could answer your question, Senator, there is no question that today you probably have some of the problems of the 1970's fixed because you have bought so much here that you have less situations, as you say, where the ships cannot go out because of spare parts and everything like that.

I think the one problem, though, and what we are trying to illustrate here, is the really large increase in total inventory, and the even greater increase in long supply items. These are the items that are just not being used. So I think what you have got here is a situation where if you have unlimited dollars for the defense program, you can do it this way. But as you come into a period of more restricted budgets, it seems to me that this is an area that should get quite a bit of attention over at Defense and in the services to try to see if you cannot reduce these inventories in the future.

Senator STEVENS. Well, what disturbs me is that you and the Defense auditors have been coming before the Subcommittee I chaired for six years and you have been reviewing these, too. This is the first time that I have heard it, and I wonder where you have been and where the Defense auditors have been during that buildup period. You were involved, came before my Subcommittee in 1982, 1983, 1984, 1985, 1986. Now, you come in 1987 and say, my God, look at this buildup.

Where were the systems that we had in place to check that buildup during that period of time?

Mr. BOWSHER. Well, I think many of the issues that we have discussed today have been in previous audit reports, both our audit reports and Department of Defense audit reports.

Senator STEVENS. Well, I would like for you to find me one time that you came before my Subcommittee when I was Chairman of

that Defense Subcommittee and told me we were buying too many long-term supply items. You just tell me once, will you?

Mr. BOWSHER. I will check the record.

Senator STEVENS. If you do, I will apologize to your agency. It seems to me——

Mr. BOWSHER. If we have not, I will apologize to you.

Senator STEVENS [continuing]. You and the Defense audit people have got to bear some of the responsibility.

Mr. BOWSHER. Yes.

Senator STEVENS. We have been relying upon you as you have reviewed these items, too.

Mr. BOWSHER. Yes.

Senator STEVENS. I hope there is a message for all of us, if you are right. I am not sure yet whether you are right. We will have to go into it from the other side of the item in terms of demand projection and the need projection, and see where those errors were made.

I am not arguing with you, John. I think the inventories that are there are there, but we have had systems to try and prevent this over the period of time. We have not been throwing money out. The implication is that the public is going to think we have just been throwing money at the wall, and that we had no justification for the monies to be made available. We had that justification. And you reviewed the justification as well as everybody else during that period of time.

I would say that you have got systems that need to be checked, too, in my judgment.

Mr. BOWSHER. We will check the record.

Senator STEVENS. Thank you.

Chairman GLENN. I might indicate Senator Wilson looked into some of this on the Armed Services Committee. That triggered off some of this about a year to a year-and-a-half ago, and then made requests and I made subsequent requests after that on behalf of this Committee. I think some of your investigation of this was initiated at our request.

Now, I do not know how closely you were monitoring all these things in the interim years that Senator Stevens refers to.

Senator STEVENS. I thought we all were.

Chairman GLENN. I thought we were, too, but obviously something slipped through a crack somewhere.

Mr. BOWSHER. We have people working on this all the time. Dick is one of the specialists in that field.

Mr. HELMER. Well, if I could say one thing, I have been with GAO for a little over 24 years, and I have spent most of that time working in defense logistics. We have been reporting on these same types of items ever since I came with GAO. I can get you probably 500 audit reports today that address poor inventory management within the Department of Defense and the services.

Chairman GLENN. In my opening statement, I think I referred to 347 reports that DOD and GAO had made in the last, what, four years or five years?

Mr. HELMER. Five years, sir.

Chairman GLENN. I do not know whether they all got into this kind of detail or not. I do not know.

Mr. BOWSHER. Some of them do address different issues, but we will check for Senator Stevens.

If I could bring up just one last Mr. Chairman, and that is the Packard Commission report because they addressed this whole issue of inventory growth, and they raised the point that many companies today in the private sector are doing it differently; in other words, handling their inventory forecasting and purchase forecasting differently.

We looked at some of that. We think there is some promise there, although it is certainly not directly comparable thing to take a system from a private company into the Defense Department because of the tremendous size. But I really think that one of the things that has to be done—and it is going to take new systems and maybe an investment in people. But our private sector has been able to bring down inventories by quite a margin by some new techniques. I am not saying those techniques are exactly the same ones, but I think that the Department of Defense should, in the next few years, make a really major effort in this area to not only reduce the investment inventory, but I think the cost of maintaining these inventories, and also to reduce these items that are just not in demand. That would be my summary.

Chairman GLENN. Senator Sasser.

OPENING STATEMENT OF SENATOR SASSER

Senator SASSER. Thank you very much, Mr. Chairman.

I want to commend the General Accounting Office for its diligent efforts to identify and recommend improvements in the Army's inventory accounting procedures. Mr. Chairman, I want to commend you for convening these hearings here today.

I have an opening statement which I would like to have included in the record, Mr. Chairman.

Chairman GLENN. Without objection, it will be included.

[The statement of Senator Sasser follows:]

PREPARED STATEMENT OF SENATOR SASSER

Let me first of all commend the General Accounting Office for its diligent efforts to identify and to recommend improvements in the Army's inventory accounting procedures. I'd like to welcome General Bowsher and also the distinguished Deputy Secretary of Defense, Mr. William H. Taft, for their willingness to appear today to present their respective points of view on the GAO's study.

The timeliness of this hearing cannot be overstated. In the past ten days we have witnessed an unparalleled upheaval in the Nation's financial markets. We all hope that this situation will stabilize without undue disruption to our economy. But it is worth noting that one of this country's most persistent, and so far intractable problems, the Federal budget deficit, is widely pointed to as one of the sources of market uncertainty. At this very moment, Members of the Congress are negotiating among themselves, and with the Administration, to produce a budget reconciliation package that might begin to come to grips with the nagging deficit problem.

In the present circumstances, any suggestion of ways in which we can improve the efficient use of tax dollars is most welcome. The figures which I understand will be presented to this committee, regarding recent upsurges in stockpiles of surplus or excess Army material inventories, are sobering indeed, If I understand them correctly, the dollar amont of so-called long supply secondary items—not just supplies and parts needed for present peacetime and combat readiness, but the surplus beyond that—has risen in six years by a factor of three, from $10 billion to about $30 billion. I would rather err on the side of our service men and women having too many than too few parts and supplies, and we recognize that some obsolescence and surplus is inevitable. But compared with or present budget deficit, a $20 billion in-

crease in military stockpiles, not even needed for present or projected requirements, poses a staggering prospect of overspending which we should all work to reduce, consistent with the legitimate needs of our armed services.

I look forward to hearing the views of our witnesses on the growth of this "excess surplus" and how improvement in the Defense Department's inventory management process can stabilize and eventually reduce this amount.

Senator SASSER. Now, General Bowsher, one question comes to mind instantly; that is, is the inventory system of the Department of Defense accurate in the sense that DOD knows what kind of spare parts it has, how many spare parts it has and where these parts are located with the procedures they are presently following?

I have in mind a question of a ship being unable to put to sea because of a spare part not being available, but that spare part or parts is actually in the DOD inventory and nobody knows it is there or nobody knows where it is. Is that one of the problems that GAO is identifying here today for the Committee?

Mr. BOWSHER. Sometimes that is a problem. It is a good illustration, I think, Senator, of why accurate inventory records are important. In other words, people a lot of times think this is just the bookkeepers and they are worrying about accuracy for accuracy's sake.

The truth of the matter is you do not have accurate records—and we do not expect perfect records, but you have got to have a high degree of accuracy so, one, you know where the part is when you need it; and, two, you do not go order it if you already have it.

I think you have made a very good illustration. Really, the key inventory records and systems are out at these large depots; in other words, these big supply centers at Mechanicsburg and places like that, because that is what we are talking about today, the wholesale supply system. This is 90 billion; there is another 50 or 60 billion out at the unit level, in the retail system.

So we are talking about the really big supply centers where they specialize in theory on purchasing, on maintaining the inventory, and everything like that. One of the things that is disappointing, as Dick points out—because I have only had this job six years, but I have worked in this area for a long time—and that is we have not seen over the years as much improvement as you really should have when you are handling this size of inventories. These are big inventory depots. They ought to have capable systems and capable people to manage them for the services. And they need it when that ship leaves port, just as much as when they make the next purchase order.

Senator SASSER. Well, I think we ought to have a higher expectation at DOD with regard to these inventories. Now, back in the days when they were trying to keep track of these matters on 3-by-5 cards, it would be one thing. But we are in the computer age now, and we have been asked to appropriate literally hundreds of millions of dollars for computers, for DOD over the years that I have been here. And we have not only done that willingly but encouraged moving to a higher level of technology to try to keep track of things.

It appears to me that with the advent of high technology computers it ought to be not a simple matter, but it certainly ought to be a manageable matter to keep track of inventories, where the inven-

tory is located, and how much of an inventory you have. And if they are not doing that, frankly I am very disappointed and feel that we may have wasted a lot of money in the purchase of these high-powered computers if we are still going to be operating much in the same way we did when we had 3-by-5 cards.

Mr. BOWSHER. One of the problems with the computers is that some of these computer systems are very old and are not in the best of shape. It is kind of like the $400 hammer. Sometimes if you computerize and you spew out information that nobody has the time to check and you get results that you would not get quite as fast when you ran the old 3-by-5 card system.

So computers can be a marvelous thing, but if you have antiquated systems and you have people that are having a hard time coping either with the volume or the inaccuracies that are coming out, why, then you can be getting yourself into a good deal more trouble faster.

Senator SASSER. Let me ask you this, General Bowsher: Has anybody done any comparative studies as to the efficiency of our Department of Defense here in the United States with regard to inventory management versus the efficiency of inventory management of other military organizations in other countries? For example, in West Germany, U.K., France, et cetera.

Mr. BOWSHER. We have not done that work, Senator. We probably could.

Senator SASSER. I think that might be a useful tool. Perhaps some of our colleagues on the Armed Services Committee and Senator Wilson——

Mr. BOWSHER. One thing that has always been interesting, because I spent some time looking at West German military units and things like that—and I think Israel is the same—because they are much closer to where they plan to fight. In other words, one of our big problems is we have this worldwide defense operation, and we have got big warehouses in the States and we have got big warehouses all over the world and everything like that. So the problem that we have, I think, is a good deal bigger than what some of those other countries have. But they might have some techniques that might be worth looking at.

Senator SASSER. Well, that question comes to mind because I have read and heard that their procurement procedures many times are much more efficient than ours. There has been some sense that perhaps we ought to try to emulate some of the procurement procedures of our NATO allies as a way of making our procurement procedures more cost efficient. It occurs to me that we might find that we could learn some valuable lessons from them in inventory management.

Mr. Chairman, I do not have any further questions of General Bowsher. I do, again, want to express my appreciation to General Bowsher and his associates for the splendid work that the General Accounting Office has done on this whole matter.

Chairman GLENN. Thank you very much, Senator Sasser.

Senator Wilson, we are going to have to move along very shortly here, because I know that Secretary Taft has to leave at 12. Do you have any other questions you want to ask?

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Senator WILSON. Thank you, Mr. Chairman. I am sensitive to Secretary Taft's time as well, and I want to get to his testimony. I could not help thinking, as General Bowsher responded to Senator Sasser's comment about computerizing, of the story about the pilot coming over the intercom and telling the airline passengers, "We have got good news and bad news. The bad news is," he said, "we're lost. The good news is we have got a tail wind." I think I take your point.

Mr. Chairman, let me say that one of the facts that I think emerges from these charts and that has emerged from the testimony this morning, is that clearly a great deal of attention needs to be paid by the Services and by us to the basis upon which they project their requirements. I would be interested, for example, in how and where the forecasting is comparable to the private sector concerning, for instance, trucks. A trucking company in the private sector has need for tires, for spark plugs, for batteries, just as does a motor transport unit in the military. And I do not know how comparable the procedures are.

Now, obviously, there are some items where it is not going to work; the private sector does not have fighter aircraft or tanks. But I would be very interested in where there is a comparable situation to find out how comparable the methods of projecting need are.

Just looking at the charts—in the absence of some peculiar circumstance—it seems we were responding to requests for a projected need that does not portray any consistent pattern other than one of growth. That seems to me a bit strange. I understand that we were building neglected defenses. On the other hand, it looks to me as though we simply went up and up and up. We never seemed to reach a plateau.

I gather from what we have learned so far that there are some major disparities, that we are perhaps near-need in some categories, and way, way over in others, without regard for expected times of consumption.

Chairman GLENN. Thank you very much.

Before DOD considers that an item in inventory needs attention, the item must have a inventory variance of more than $800. That is, the variance between the inventory record and the stock on hand must be greater than $800.

Mr. BOWSHER. That is correct.

Chairman GLENN. They do not worry about those that are below $800. I wanted to get into that a little bit. It seemed to me that by just counting them and not really taking them into account, DOD may be by-passing important items. There may be many $800 or less items that are absolutely crucial for readiness whether we go to war or not.

Mr. BOWSHER. That is right.

Chairman GLENN. It seems to me that maybe DOD needs to consider a readiness factor in addition to a dollar factor. I also appreciate your coming this morning. We may have additional questions from other members of the Committee. Thank you very much.

Our next witness is the Hon. William Howard Taft, IV, Deputy Secretary of Defense. Mr. Taft, we welcome you. I believe you have been in the audience. You know what direction we have been following this morning. We will appreciate any statement you might

wish to make or a summary thereof, and we will get on to our questions.

We appreciate your being here this morning. I know you have got a very busy schedule, and we appreciate you making time for this.

Senator WILSON. Mr. Chairman, before Secretary Taft begins, I would like to say in this hearing essentially what I said before he arrived. That is, that we are grateful to him for appearing and for the spirit of cooperation that his appearance and his actions clearly indicate. A lot of the things that we are looking at did not happen on his watch. The thrust of our inquiry is not finger-pointing; it is to try to correct what is wrong and, more importantly, to prevent the recurrence of what appears to have been some very unfortunate mistakes.

Chairman GLENN. Right. Mr. Secretary, go ahead.

TESTIMONY OF WILLIAM HOWARD TAFT IV, DEPUTY SECRETARY OF DEFENSE, DEPARTMENT OF DEFENSE

Mr. TAFT. Thank you very much, Mr. Chairman, Senator Wilson. It is a pleasure for me to appear before you to discuss the Department's program and our initiatives for improving the accountability and security of our inventory system. I have a very long statement which I have provided to the Committee for the record. It runs some 45 pages, and I would not propose to read it at this point, but request that it be made a part of the record.[5]

Chairman GLENN. We certainly will. Without objection, it will be included in the record in its entirety.

Mr. TAFT. Thank you, Mr. Chairman. My statement does, in fact, cover a lot of ground as to what we have been doing, in the area of inventory accountability and makes some comments on the GAO audits and in particular on some of the recommendations that the GAO has made. Many of these are extremely valuable recommendations with which we agree. Indeed, in the Comptroller General's written statement, I noticed, though less so, I am sorry to say, in his oral statement, he began to describe a few things that we have been doing right and to compliment us on the efforts that we have been taking. I am sorry that those points were omitted from his oral presentation, but they are there in the written statement and I am glad to point that out.

We are working together with GAO and the Congress on this problem. We do not view it as a confrontation between ourselves and the GAO or between ourselves and the Senate or between our staffs and the people who manage these inventories for us. It is a task that is enormous in scope. We take the GAO reports when they come into us, every one of them, look at the recommendations, see if they are valid. If they are valid, we put them into practice. We do not rubber stamp them, as they would like us to do. GAO believes they are right, but we do have occasional disagreements as you do. When we do not think GAO is right, often we do and we go ahead and try to implement their recommendations. It is an effort

[5] See p. 107.

that we are all engaged in. I thought it important to point that out at the outset.

Mr. Chairman, if I may briefly summarize my statement at the outset. I would like to note that in your letter asking for our testimony, you requested that we explain apparent discrepancies between DOD's inventory records and material on hand; the impact of these discrepancies on DOD's ability to conduct its mission; the type of research that is conducted to investigate discrepancies between records and material; and the actions that DOD has taken or is currently taking to improve its supply system.

Subsequently, you requested that we discuss inventory growth, what is causing it, and what we are doing about it. That is what my statement addresses.

To appreciate the challenge that we face, I think we have to recognize the size and the complexity of our system. Nothing in the private sector really compares with it in terms of size, in terms of geographic dispersal or in volume of business. Maintaining accurate physical inventories and computer record balances in a system of this size is a significant challenge for us.

To accomplish our objectives, we use the DOD Inventory Control Program, which concentrates our efforts on known and significant problems. This is where auditing comes in as a useful tool to identify these problems.

Our Inventory Control Program includes location audits, physical inventories, research, quality control, and performance measurement. The program seeks to maintain agreement and accuracy between inventory records and on-hand quantities, identify and correct inventory variances, and correct the causes of these variances.

I am not going to describe in detail the system for you here except to say that the system is described in my written statement. Performance of our system has to be measured, I think, first and foremost in terms of the system's contribution to readiness and to sustaining our fighting ability. From this perspective, I would answer the first two questions that you raise. We must determine whether there is a problem in terms of mission performance. To do this, we measure supply system performance several ways.

The measure that describes the direct effect of inventory inaccuracies, where they exist, is the material denial rate. In the past eight years, DOD has achieved a very consistent and impressive denial rate of less than one percent on the more than 30 million requisitions that are processed annually. Thirty million times, customers ask the system for something, and less than one percent of the time we do not have it. If there is any detrimental impact on force readiness, it is minuscule. Even orders initially denied are, of course, filled shortly.

Recent GAO work does not recognize the high level of inventory accuracy in DOD. The GAO focused only on the measure of initial record accuracy. These rates appeared relatively low, but overall inventory accuracy was actually quite high. If I may take the Defense Logistics Agency GAO review to illustrate this point.

In that case, the initial inventory record accuracy rate was 63 percent; that is, 63 percent of the records that we had were perfect. This measure does not accurately describe the inventory program.

It says nothing about the nature of the errors or how large those errors might be.

A deeper look discloses that the unit accuracy rate in DLA was 97.1 percent. That is 97.1 percent of the quantity of material that the records said should be on hand was on hand at a particular time. Further, 78.2 percent of the reported inaccuracies involved deviations of less than five percent. The whole record is counted as inaccurate, but it is not inaccurate by a great deal.

Chairman GLENN. Is this on a number count now you are talking about?

Mr. TAFT. That is, of the reported inaccuracies in the GAO review, 78 percent of them had a deviation of less than five percent, up or down, I should say. It could be up or down. This is not a large discrepancy.

Chairman GLENN. Just so I am clear on this, the percentages you are still talking about are where the actual count matched?

Mr. TAFT. No. In 63 percent of the cases, the records were perfect, matched absolutely. Now, in the 37 percent, over three-quarters of those were within 5 percent of the proper count.

Chairman GLENN. Well, if we are not counting quantity, how do we know that?

Mr. TAFT. We did go out and count. This is the count of the quantity in that particular review. These are GAO's figures. They did the study, and they said in this study we had 37 percent inaccurate. However, 75 percent of these items were off by less than 5 percent.

Chairman GLENN. Go ahead.

Mr. TAFT. So it seems to us that, while there were a third of the records, at least, that had some error in them, they were not large errors. I think the same is true in the Military Service studies that were conducted by the GAO.

The key question is, what constitutes good inventory management control? When is the inventory right? A May 1986 *Accounting Management* article provided an informed answer to this question. This is what the accounting people say.

I am quoting: "The value of on-hand units for a given time in a superbly controlled perpetual inventory is right when the record quantity is within 5 percent of physical on-hand quantity 90 percent of the time. In a typical company," it goes on to say, "the perpetual on-hand quantity of a given item has perhaps a 60 percent chance of being right. The GAO review of Army and DLA sample inventories found 74.2 percent and 78.2 percent of their respective records had unit variances within 5 percent. While this is not superb, it is far better than the typical company could expect."

So we are doing, I think, a bit better than may have been indicated by the studies, but we agree that we have to do better still; and we have all of the programs under way that are mentioned in my statement, and that the GAO has referenced, to improve further.

You also asked for an explanation of the manner in which we conduct research. We conduct research for two basic reasons: To investigate suspected variances and verify corrections to accountable records; and to identify the systemic reasons for variances so that preventive management actions can be accomplished so variances

will not occur again. We research over 90 percent of the total gross dollar value of our annual adjustments, over 90 percent.

While we believe a sound management program is in place, we are working to improve control and security of our inventories. This relates to your fourth question about the security. Our analysis indicates that our basic problem is record-keeping rather than fraud, waste or abuse. The DOD supply system is run by people; thus, we concentrate on improving the policies, procedures, systems and the training on which those people depend.

Our inventory control policies are continuously being improved in accordance with the five-year DOD Physical Inventory Control Program Plan to which the Comptroller General referred. That plan is updated annually. It was recently just reissued this month, and it focuses on problem areas and establishes milestones for resolution of these problems over the next five years. It will be updated again next year.

Another major effort now under way is modernization of our logistics ADP systems to which reference was made by Senator Sasser earlier. Virtually every logistic system is in some stage of upgrade. State-of-the-art technologies are being applied to improve transaction recording and management control reporting. I should say that the introduction of these systems, of course, do in itself involve some disruption in the inventory-taking, but it is well worth the effort and we give it a very high priority.

We are also modernizing our distribution facilities and systems. These improvements will streamline storage operations, improve our security and simplify surveillance. In some cases, access to DOD inventories will be limited to machines, and no people will have access to them at all.

These improvements complemented our 10-year effort to enhance security by installing barriers and more obvious types of things such as protective lighting, intrusion detection systems, and other elements of a balanced security system. We emphasize protection of mission essential or critical material and hazardous items, and deterrence of external adversaries, terrorists and so forth. We have also made progress on deterring internal theft as well.

The last topic that you asked me to address is inventory growth. Since 1980, requirements for inventories of material stocks in DOD have increased more than a hundred percent, growing from 43 billion to more than 90 billion, as was indicated, I think, in one of those charts that you had up here earlier.

Much of this increase results directly from our improved material readiness and increased operating tempo of the forces. Material readiness is essential to rebuild the Nation's defenses through increases in inventories of spare parts, consumables and personnel support material.

I would point out, Mr. Chairman, I have a chart. I do not know whether I have a big chart, but I have little ones—I do have a big one, too? Good—which shows that the growth in our inventory of secondary items actually is about in proportion as the growth in the weapons systems and equipment that they support. This growth in the last year was about 24 percent, 24.8 percent if that is right. In 1981, it was actually a little higher than that, 25 percent,

25.1 percent. It has been as high as 29 percent, but where we are now is essentially where we were in 1981.

So while inventories have grown, one of the reasons for growth, the principal reason for growth, is to fill the bins to be able to support the much larger population of weapons systems and equipment that we have out there and the higher operating tempo that we are able to pursue with them. So this extraordinary growth is actually just in line with the growth of the systems that we support.

At the same time, we recognize that unconstrained growth of stockpiles can be counter-productive by diverting resources needed for modernization. In 1983, we initiated a comprehensive analysis of the causes of inventory growth, focused management attention on limiting inventories to those needed to support force modernization and increased operating tempos. This issue is a continuing agenda item in the Defense Council on Integrity and Management Improvement, the DCIMI, which I chair, and also it comes up very sharply at budget time when we scrub our inventory requirements.

We are conducting an intensive analysis of all factors that contribute to inventory growth, and our goal is to eliminate growth unless it contributes to modernization, to readiness or to sustainability.

I would like to just comment, since you asked quickly, Mr. Chairman, specifically on the content of that long supply portion of our inventory growth, which has been referred to here and which is designated as bad growth by the Counsel for the Committee. I would say that if we are looking for areas in which to reduce our inventories and to save money, this is the place to look. In that sense it is "bad" growth, but it is not all bad growth. I think it is important to understand the several elements of it, and I am glad you asked about them.

The elements are—and this segment of inventory has gone up, I believe, from 10 billion to about 29 billion, so it has tripled. A large part of this growth is caused by the rise in prices for these items in the inventory, things that were already there. We have just repriced them because the value of them has gone up, and this is a chart in dollars, not in the number of items.

The components of long supply are several. One is the economic retention category. Let me first of all say that it has been said here that there is no known use for these items. This is partly correct. The definition of these items that there is no known use for these items in the next 12 months. I think it is very important to underscore that. It is not that there is never any known use for them. It is that in the next 12 months—the theory being that if we are thinking of buying them, we would not buy them this year. We would buy them next year. That is why the 12-month period. I think it is important to remember that.

Economic retention stock is a good portion of long supply stocks. It is about 7.5 billion, about a quarter of the almost 30 billion that we now have in long supply. These are items that have been purchased in excess of the 12-month period because of a good price or because of some economic reason for retaining them. It would not make sense to dispose of them because it would cost more later in 3

or 4 years to have disposed of these items and buy them again later at a higher price.

About half of this inventory that is in what we call the contingency retained supply; that is, $14.7 billion. Part of the reason for this category increasing is pricing. Also, we have established a policy of not disposing of items that support weapons systems that are still in the inventory until those weapons system are totally phased out. Even though, as we say, we have a tank and we cut the number of those tanks over a period of time, we do not reduce the inventory for them until they are all gone. We retain it and then get rid of the end item first and then dispose of the support inventory.

We ran into a lot of trouble. I was up here, in fact, testifying on this about four years ago of disposing of items for which we then had to go out and buy later at higher prices. That is something we want to avoid, so we established a rule that as long as we have the end item in the inventory we will not dispose of the secondary items supporting it.

Also, foreign military sales requirements are one reason for the rise in this contingency retention area. We are under an obligation when we supply end items under FMS to friends and allies to maintain a supply of parts to service them. These parts may not be required for our use in the next 12 months, but they are necessary for the FMS accounts.

There is also in this area $5.5 billion of materiel we call potential excess, which, indeed, we do propose to get rid of. This segment is actually about on the same level as it has always been. The growth is not so much in that area. It has been $4, $5, $6 billion each year for many years. So that is where inventory growth has come from, mainly in the economic retention and the contingency retention areas.

I do not say that we cannot or should not look at this. My own sense of it is, having looked at these numbers, that long supply has grown more than the basic inventory, that it is the softer area. And when we are looking for savings—and we are—in the coming years, this is an area I am going to hit very hard in the budget cycle. You will find us coming up with proposals to improve that area.

There were a couple of other points that were made that we might want to get into, but I think probably I have taken too long in my opening statement, Mr. Chairman. I want to be sure that we do cover everything that you and Senator Wilson and Senator Levin and any other Senators have, so I would be prepared to take your questions.

Chairman GLENN. Good. Thank you very much.

What we are after here is efficiency that leads to one result, and that is better combat efficiency. That is the purpose of the whole thing, making sure that that combat efficiency is maintained with the supply system that has to sustain any combat.

You said that to obtain a high degree of inventory accuracy is difficult. I agree with that wholeheartedly. In fact, I do not believe you were in the room, maybe, when I read into the record a statement of your overall inventory operation. It is enormous. It is bigger than—I think I read into the record—the 5 largest Fortune

500 companies combined and it is a very difficult situation to manage. But it will be judged finally by whether we have a combat capability or not. And when people are getting shot at, they know they have to have the material when they need it. That is the final judge.

Let me depart just a little bit and take a little different tack here. In your written testimony you made a statement that sort of jumped out at me. It said that in recent years a growing amount of excess DOD material has been used to support humanitarian aid programs, both in the U.S. and overseas. I am a little dubious of humanitarian aid programs, I guess, when I consider how some of the $27 million funds were spent that were supposed to be used for humanitarian AID a few years ago. We asked GAO to track that to see what the money was used for. It was supposed to go to humanitarian aid for the contras. We can only track $9 million of it. Mr. Bowsher gave testimony to that effect here before this Committee earlier. Within that $9 million they found an $80,000 contract for hand grenades.

Now, that is some humanitarian aid. It was certainly not what we intended. When you say that a growing amount of excess DOD material has been used to support humanitarian aid programs both in the United States and overseas, does this include aid to the contras?

Mr. TAFT. No, sir. I was not going into the specifics of any of the particular programs. I doubt that excess items have gone to contra aid. I know you have gone into this area in great detail and with the sources of this aid.

I had in mind the disaster relief efforts. We sent blankets, tents, materials of that sort, when there are earthquakes or volcanic eruption. The State Department pays for these items or reimburses DOD for them. AID programs, essentially, is what I had in mind.

Chairman GLENN. Are any of our long supply items being sent to the contras?

Mr. TAFT. I am not aware of it. No, sir.

Chairman GLENN. Well, you would be aware of it if it was being done, would you not?

Mr. TAFT. We will check on it. I am not sure of the sources of the aid that is going to the contras. I know that the total amounts of aid are very carefully regulated. If they included some things that were being bought from DOD, that perhaps is possible. And there would be nothing improper about it if they are properly authorized to be sent to them.

Chairman GLENN. Will you check on that and let us know what items are going, very specifically, particularly out of the long supply, but also the short supply?

[The response received follows:]

The Department of Defense respectfully requests that this question be referred to the State Department. The State Department has the responsibility for and information on all aid and support provided by the United States Government to the contras

Mr. TAFT. Yes. Well, if they are going, for all the reasons you have been discussing, I would rather have them go out of long supply.

Chairman GLENN. Well, I would prefer to have them not go from any supply.

Mr. TAFT. Unless they are meant to go.

Chairman GLENN. Without us knowing about it.

Mr. TAFT. No, if they are meant to go and bought from DO in a legal operation.

Chairman GLENN. Well, if they are meant to go legally and we have been told about it and it is not a surreptitious operation of some kind, then I agree with you completely.

Mr. TAFT. That is right. Yes.

Chairman GLENN. I prefer to have them go out of long supply. But we have seen some strange and wondrous types of creative accounting with regard to supporting of the contras, and we are particularly sensitive to that right now.

Mr. TAFT. No. I assure you my statement was not intended to insinuate or indicate any awareness on my part of such a program of contra aid.

Chairman GLENN. All right. There is approximately $30 billion being invested in long supply categories, and yet we define that as no known present peacetime or wartime requirements. We have termed that "bad" growth. You referred to that a moment ago. That has gone up enormously. Is that just poor planning? Why was there a $20 billion increase in long supply in five years?

Mr. TAFT. Well, as I tried to say, long supply has a number of causes. Some of it is just price adjustments.

Chairman GLENN. What percentage of it would be price adjustments? Because inflation has not gone up that significantly.

Mr. TAFT. Well, this would be since 1981. We have had considerable price adjustment since 1981. I do not know what the price index is. They would not all have been adjusted. We reprice when we buy a new item.

Chairman GLENN. You have a 200 percent rise in that account. That is not accounted for by any inflation by a long shot.

Mr. TAFT. No, sir, I am not suggesting that. I suggest repricing a part of it. If you would like to have us break that out for you, we will be glad to do it. It is a portion of growth.

Also a portion is based on our ability, with the higher budgets in the 1980's, to increase economic retention supplies, which are for periods in the future that it makes sense to retain now. Some of the growth is in, as I described, the FMS account support; some of it results from our non-disposal of support items for existing, retained weapons system proposals; and some of it is mistakes in demand projections. That last area is the one that we are mainly going after.

Chairman GLENN. Another way of looking at it is you certainly would not be coming to Congress asking for funding for those long-supply items.

Mr. TAFT. We are not. I would say this is a tricky area politically. I went into this some two years ago in connection with the Air Force budget, and I found that they had been buying too many spares. I think, in fact, Senator Levin, had a hearing on this subject. One asked me why after I had gone through that exercise I had cut the Air Force spares request below what it had been the year before. I had cut it very significantly.

Chairman GLENN. Well, let me get into that.

Mr. TAFT. I have talked with Senator Levin, and he agreed with me that we had a problem there. But it was a sensitive item to actually ask for less in what looks like a great readiness account. So we need to get inside these things and solve the problems. That is what we are doing. I hope we have your support as we do it.

Chairman GLENN. You mentioned about the Air Force buying too many spares. The Air Force has indicated to our staff that in March of 1986 they had over $600 million in DOD excess on order, excess on order, aircraft spare parts that have not even been delivered. GAO found that the Air Force's long supply inventory jumped by $6 billion in the year ending March 1986.

Now, are you on top of that one? These are not small ticket items. We are talking $6 billion and $600 million in excess on order.

Mr. TAFT. I have heard those figures, and we do not agree with them. We pointed that out to the GAO and the Committee. The definition of what is in excess on order in the GAO report is not our definition of excess supply.

Chairman GLENN. The Air Force gave us the $600 million figure. Even if you eliminate the $6 billion——

Mr. TAFT. The $6 billion is the one that we had objected to, and I thought had resolved with GAO that was simply not correct.

Chairman GLENN. How about the $600 million?

Mr. TAFT. Well, as I point out, there are some things in this long supply that it makes sense to retain. I do not know the specific ins and outs of the $600 million in the Air Force accounts, but an economic purchase may be accomplished to get a better price for something you are going to need 15 months from now, as opposed to just the 12, you should do it.

Chairman GLENN. Is this purchase so far along in the pipeline it cannot be turned off or what? This is $600 million excess on order. It is not that it is in the warehouse now, as I understand it.

Mr. TAFT. We will look at that specific case. I think there was a difference between ourselves and the GAO.

Chairman GLENN. The $600 million is an Air Force figure, not GAO's.

Mr. TAFT. Right, but there was a difference as to what was actually excess. If something is being bought for economic reasons, it still is in this long supply category. But we should buy it. If there is still a requirement.

Chairman GLENN. Now, stay on the Air Force just a moment here. GAO provided us the data indicating the Air Force in one year ending March 1986 increased its on-hand and on-order excess aircraft spare parts from $3 billion to $9 billion. Now, is OSD monitoring each service to minimize this kind of thing?

Mr. TAFT. Yes, sir. The $9 billion figure is the one that I referred to that we did not agree with. Our feeling was that the growth was not at all $9 billion, that it was $300 million. In fact, that is the figure that we had, and that was just 2 percent of our total on-hand and on-order spares inventory. We simply did not agree with the GAO figures and we pointed it out to the GAO. These were contingency retention stocks. They do go into long supply, but they are not excess to DOD needs.

Chairman GLENN. Well, it is one thing to increase the on-hand excess spare parts, but quite another thing to have on-order parts which are excess to requirements. Do we have no way of coping with that?

Mr. TAFT. Yes. We should not have them on order if they are genuinely excess. I am troubled by the suggestion that all long supply is excess. It is not.

Chairman GLENN. No, it is not, but we have about $5.5 billion in there that is up for disposal now. Now, that is not a very good track record. Put up the chart which shows this growth.

If I remember the figure cor ectly there is $5.5 billion in potential losses that is up for disposal right now.

Mr. TAFT. That is what we propose to remove from inventory this year. That is about the same, I am told, as the historical trends, about $4, $5 billion a year is the figure I have been given.

The reason for this disposal is that, for example, we were supporting a weapons system that has been completely replaced and is now totally out of the service; then all of the material that was supporting end items which are now excess and should be sold or disposed of. If we have a type of uniform that we are no longer using, the ones that we did not issue are sold, things of that sort. That is the $5 billion. That is a pretty steady portion of our inventory, I am advised.

Chairman GLENN. Senator Wilson.

Senator WILSON. Thank you very much, Mr. Chairman.

When you say that the figure remains essentially what it has been, Secretary Taft, are you saying as a percentage or as a dollar amount?

Mr. TAFT. Yes, let me see if I can get it.

Senator WILSON. Which?

Mr. TAFT. I believe it is a dollar amount, and I had heard $4 billion in 1981. These are figures that are readily available. Let me see if I can have them provided for you within the next short period.

Senator WILSON. I would be very interested in the answer to that question because it would seem to me, just as a gut reaction, that if we are selling off surplus, as weapons systems grow obsolete and are replaced, that that is not that regular and consistent an occurrence. I would think that it would be a more spasmodic thing so that there would be plateaus and then reductions. I was trying to follow your testimony as you explained this chart that is labeled "Composition of Secondary Inventory." The thing that I think is difficult for us to understand without an even more detailed breakdown than is provided by that chart, is exactly what kind of long-term forecasting really goes into this system of acquisition, and what projections of consumption?

We now have in the law—it is a recent addition to the law—a requirement that as we acquire a new weapons system there be an assessment by the Pentagon of the personnel and the manpower needs that will be generated by that new system. From the testimony we have heard this morning, it would appear that our long supply inventories are reaching the point where they are burdening even warehousing, that they are blocking the aisles, making it impossible for forklifts to navigate the warehouses.

Is there a similar effort to really determine what the requirements will be that are collateral to the acquisition of materiel in the same way that we now require an assessment of what the manpower requirements, the additional manpower requirements generated by acquisition will be?

Mr. TAFT. There is exactly such an effort in connection with every weapons system that we buy including the support for it. In fact, we insist that support costs be budgeted because it is not an honest accounting of the total cost of the system if support is not part of total system costs. We consider these costs as we go about considering whether to buy a system and how many of them to buy.

Regarding warehousing problem, my information is that we are about 92 percent of capacity. That capacity may not all be in the right place, and is not all up-to-date and modern. But there is some room to grow if we manage it right. Space utilization is up from about 84 percent at the beginning of the decade, but I am advised also that we expect that to go down somewhat. And certainly to the extent that we focus on long supply, get some of that material out of there, get this $5.5 billion out, and get that number down, that will help the storage problem.

I have, by the way, found, while you were speaking, Senator Wilson, the number on proposed excess in 1980. It was $2.5 billion, which compares, I think, on a percentage basis about with that $5.5. That is, the percentage in 1980 as to what was in the total inventory. So that is comparable.

Definitely, we need to address what is a proper way of pricing the cost of initial spares and the support of the weapon system as we go along. That is one of the reasons why the Under Secretary for Acquisition now has under his purview the logistics offices which he did not have until we created his office. So the logistics support of the weapons system will be part of the consideration of the weapons system at the front end, as it should be.

Senator WILSON. Well, the need to do so, as every witness and every member of this panel has indicated this morning, I think is very clear. We are in a time of very stringent circumstances. And while the people sitting here have generally been supportive of the build-up that has occurred over the years of the Reagan Administration, as you look at that chart there and see the number for just what is being sold off as excess inventory, it is more than an interesting figure. At $5.5 billion for 1986, it represents a billion dollars more than the Senate figure for the entire SDI program for fiscal year 1988.

We are talking very big numbers. We are talking of a necessity to really set priorities overall. And if savings can be made here—and these charts certainly indicate the possibility of some fertile ground—we are obliged to, I think, pursue that as vigorously as we can. Nobody wants to see ships unable to put to sea or tanks unable to roll. On the other hand, neither do we wish to see ourselves constrained artificially by warehouses full of gear that will not be used for years that really cannot be justified perhaps even in terms of a good price.

Mr. TAFT. Senator, I hope I can win with you. I would like to see next year's potential excess figure be higher. The point is to get

this stuff out of our warehouses. The PE number is the materiel we really are getting rid of because we do not need it.

Senator WILSON. I am not arguing——

Mr. TAFT. Let us identify potenital excess and get it out of the inventory.

Senator WILSON. I am not arguing with your effort to get rid of it, but the whole point is that what presupposes that figure is that somebody did not make a particularly wise buy to begin with.

Mr. TAFT. Well, It could be 10, 15, 20 years ago that the materiel stuff was bought, and now it is obsolete and it is time to go. But our objective is to identify materiel as soon as it is obsolete and get it out of the system. We must work this long supply number down, increase the PE number and get it out of the warehouses.

Senator WILSON. Okay. I recognize that a lot of this may have pre-dated you and pre-dated even this Administration, but nonetheless, the question needs to be asked.

To move to another point, you have this morning made much of wishing to cooperate with GAO and, in fact, have made the statement quite candidly, and perhaps even generously, that many of their findings you find useful and that you intend to incorporate them into practices. Have you, working with GAO or independently, come up with a number, a dollar figure, that represents what it will cost the Pentagon to modernize the accounting system at the supply system at the wholesale level?

Mr. TAFT. Senator, I do not have that number. I would say that the constraint here is more of a management one than a dollar one. These are systems that it takes time to put into place. The dollars that are involved in them are considerable, but in comparison with the savings and the amounts of inventory that we are managing, funding is not the thing that is constraining us. These systems are a good investment in view of the dollars that are at stake here.

More critical is the question of the time that it takes to change over systems and put them into operation.

Senator WILSON. That was my next question to you, as a matter of fact.

Mr. TAFT. System modernization is what takes a long time.

Senator WILSON. That was, in fact, my next question.

Mr. Chairman, it may be unfair to expect the Secretary to have the answer today, but it is not an unfair question to ask the Department of Defense to come up with a dollar amount that would be required for modernizing the accounting and safeguarding of the supply system, and, a figure that represents the amount of time that will be required.

One of the things that can be done quickly and soon, but represents an ongoing requirement, concerns the supervisorial function, making command supervision important as a matter of measuring are officer's career performance. But I would hope that, at the conclusion of these hearings, we will have some idea as to what it is going to cost, what we will save, and how much time it is going to take to put in place the necessary reforms.

Let me ask a final question, Mr. Chairman.

Mr. TAFT. We will provide that, Senator.

[The information referred to follows:]

The Department of Defense has a many-faceted on-going program to improve the accountabilty and security of Defense inventories. The program includes improvement of policy and procedures, upgrading of facilities, and modernizing the computer systems which support the logistics function. These modernization efforts, as well as the improvements to facilities, policy and procedures, are directed at improving the entire logistics process and go well beyond physical inventory control. A great deal of the problem is centered in the antiquated computer systems which are in use today. Most of our current systems are dependent upon 1960s technology, which make unauthorized access and transaction errors difficult to detect and control. Of all the efforts we have underway, the modernization of our logistics systems will bring about the greatest improvement in productivity and control. The current estimate to modernize the logistics systems is $13.3 billion. These modernization efforts are underway and will be continuing into the 1990s.

Senator WILSON. Then I will be quiet, for a time, at least.

Let us move to this whole subject of physical security of sensitive items. The thing that I think Senator Glenn and I find most distressing is that this is not a new problem. We focused in the news conference that we held last week on the problems the Army has had with physical security of highly sensitive items, TOW missiles, Stingers. But if you go back, you will find that the 1983 Inspector General's report recommended that individual line items should be placed in the budget for inventory security enhancement.

What ever has happened? I mean, evidently, not much or we would not have held a news conference, because we would not have found doors being propped open we would not have found open corrugated metal sheds with Stinger on the side. These are things that clearly should not happen.

Again, the question I'm about to ask may seem almost rhetorical, but there really needs to be a question put to whatever unit commanders were involved in these shortcomings, and the questions need necessarily to go up the chain of command. I am not going to ask whether you think it is a good idea. Obviously, you share my concern that these defaults occur. The real question is the problems were noted as long ago as 1983, yet adequate steps have not yet been taken. Why?

Mr. TAFT. Well, Senator, we are spending over $2.5 billion a year on physical security to protect our assets and people. This is not just, as I say, for the material, but it includes the installations and bases overall on which people as well as the equipment are found. A large portion of this investment is for the inventory and is for high priority items such as the missiles that you mentioned.

There is a great deal to be done here, basic things: lighting, fencing, the buildings and locks. These are being done, but they are not all complete. We come to you each year with a request for more funds to do more of the needed modernization each year.

I do think that it would be unduly alarming to suggest that the Army did not know, for instance, where the Stingers were by production lot number. They did know where they were; the right numbers were where they were supposed to be. What they did not know as the actual serial number of each individual missile in that batch. They now are, as the Comptroller General indicated, clarifying that they were meant to keep track of those items by serial number, as they should have. In fact, that was their policy; they had not been doing it. But the actual missiles were all there where they were meant to be and secure.

Senator WILSON. Well, I would frankly take issue with the "secure" part of your statement. The things that we talked about last week in that news conference had to do with what was clearly inadequate security in terms of locks, in terms of the buildings in which these kinds of materiel were being housed.

You know, I am somewhat sensitive to the fact that commanders are unwilling to make requests for additional funds, particularly if they do not think they are going to get them. What I think we are telling you is that whatever difficulty you do encounter in a time of financial straits, there needs to be much greater emphasis placed on physical security of sensitive items, sufficient so that no military commander at any level is in the position of saying, "I could not get what I needed in order to bring about basic physical security," be it lighting, be it intrusion detection devices, be it the kind of military construction. Failing all else, there should be an ability to move or to physically safeguard by manpower the sensitive items. And there are even derelictions in that respect.

I think it was a rent-a-cop that we found who had left a note saying he would be back in five minutes. There is need for much more attention.

Mr. TAFT. I agree with you, Senator. I would say that perhaps we are at fault in not adequately supporting our military construction requests. But whatever the cause of it, it is a continual source of disappointment to me to see every year 15 to 20 percent taken out of the military construction requests that we send up to the Congress. Much of this funding would help in this area. Much of that money would go to security. And it is particularly weak support that we have had for that request.

Chairman GLENN. Line item your security needs, and I can assure you you will get support from us.

Senator WILSON. That was the initial question.

Chairman GLENN. We have got to move along here.

Mr. TAFT. They are all line-itemed. Every mil con request is line-itemed, but we tend to get also a slash across the board that is not specified.

Chairman GLENN. Yes. We have got to move along. Just to take exception, I do not agree with your assessment that the Stinger situation was not one to concerned about because the missing missiles just happened to be in a neighboring command. In combat, you have got to know where the missiles are to be able to lay your hands on them. In peacetime, you were unable to locate the specific missiles for six months. You finally located all of the missiles somewhere. However, initially you did not even know whether they were in Iran. We now know what happened to them. They may have been used for good purposes. But if you are going to adequately supply a combat outfit, you have got to know something as vital as where the missiles are to shoot at airplanes. You cannot hunt for them for six months.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman. Welcome to you, Secretary Taft.

On page 22 of your testimony, you say that high level emphasis on inventory control and accuracy has resulted in the following, and the first thing is the reissuance of an instruction. What was

wrong with the first instruction? Was it not being obeyed? Why did you have to reissue it?

Mr. TAFT. Well, I think that the statement goes on to indicate some of the particular changes that are designed to improve inventory control and accuracy.

Senator LEVIN. Well, are those changes that you are listing there, or was that in the original instruction, those items?

Mr. TAFT. No. These are changes that were made. Some improvements had been in place for some time but were not actually updated in the Directive. They had not been incorporated in the Directive. In other words, our practice was somewhat ahead of the documentation. But some of them had not been done, and they are described here in the passages that follow.

Senator LEVIN. For instance, your policy enhancement that says "Expands DOD physical inventory control policy to cover all supply system inventories * * * policy statement stresses," are we to assume that each of these are changes from the original instruction, and, therefore, you had to reissue it?

Mr. TAFT. That is why we made the reissuance, yes, sir.

Senator LEVIN. So you modified your original instruction to include these items; is that what you are saying?

Mr. TAFT. That is right. They are described not only on that page, but on the following. They go on for quite a way.

Senator LEVIN. I can see the description. Okay. But we are to understand that these are modifications in the original instruction?

Mr. TAFT. That is correct.

Senator LEVIN. I have got to tell you, Secretary, I get a sense of deja vu when I come to these hearings on inventory control. The GAO and I guess the DOD auditors have issued literally hundreds of reports, and it does not seem that we make a heck of a lot of progress. I decided to go back to the last statement which I happened to hear of Mr. Schriber. Is he still with you?

Mr. TAFT. No, he is not, but not because we did not want him to be. He did a good job for us.

Senator LEVIN. At any rate, this sense of deja vu, I must tell you, was enhanced when I compared your testimony today with his testimony in front of the Senate Task Force on Inventory Management Practices of July 1986, a little over a year ago.

If you will turn to page 34 of your testimony, where it says, "Another area." Do you see that at the top of page 34?

Mr. TAFT. "Another area which will have significant positive"—yes, sir.

Senator LEVIN. Yes. Well, I go back to Mr. Schriber's testimony, and it is verbatim. "Another area which will have significant positive effects upon inventory accuracy and security is the investment," et cetera. Mr. Schriber's testimony of July 1986. "Another area which will have significant positive effects upon inventory accuracy and security is the investment"—it is verbatim, that paragraph.

I say, well, that is a bit much. I do not understand that. So I go to the next paragraph. I look at your paragraph: "Now let me turn to the improvements we are making in our policies and procedures." I go to Mr. Schriber's testimony, July 1986, exactly the

same paragraph: "Now let me turn to the improvements we are making to our policies and procedures."

Then I go to the items. All the items which he described are in your list. You have added a couple. It is not quite verbatim. You have changed the wording of some of those. But when he testified in July, he said, "Many of our policy issuances have been revised and strengthened recently." That is exactly what you say. It is just literally verbatim. Again, he lists four and you list those same four. Now I understand what that deja vu is so strong.

How do you explain that? Even your conclusion is his conclusion.

Mr. TAFT. Well, I would explain it, Senator, by saying simply that some of these things bear repeating.

Senator LEVIN. With or without attribution? [Laughter.]

Mr. TAFT. I will be glad to attribute this to Mr. Schriber's testimony. We are doing these same things. The statement is an attempt to document and update what we are doing.

Senator LEVIN. But nothing has changed in a year-and-a-half.

Mr. TAFT. Well, the point is that these are continuing programs and they have made progress.

Senator LEVIN. You are taking somebody's testimony from a year and three months ago and just ripping it off verbatim and presenting it to this Committee. I find that, frankly, disconcerting, and I think it just reduces the level of confidence we have that something significant is going on.

I mean, your conclusion is exactly the same as his. You say, "Mr. Chairman, you and the other members of this Committee have always been supporters of a strong national defense. We deeply appreciate your past support. We are keenly aware that"— it is the same conclusion. "Mr. Chairman, you and the other members of the task force"—the words were changed, "task force" to "Committee." Other than that, it is exactly the same conclusion. "Therefore, we welcome these hearings as a constructive dialogue." "Therefore, we welcome the hearings as a constructive dialogue."

I mean, I have got to tell you, when I read that, when I read these two documents, I do not have any confidence that anything has changed. Now, you can say that things have happened, maybe, in the last year, but whoever wrote your testimony, frankly, should be chastised, castigated, I believe, for just absolutely tearing off, using without attribution, chunks of another DOD employee's testimony of a year-and-a-half ago. It means nothing has changed. And it is wrong, the form is wrong. I think you will concede that that should never happen. We should never have somebody coming up here testifying verbatim, without attribution, to exactly the same things that somebody else testified to a year and three months ago.

Would you not agree to that?

Mr. TAFT. Well, let me make the point that we are describing continuing programs.

Senator LEVIN. Well, would you agree to that?

Mr. TAFT. I would say that, first of all, I gave an oral statement which specifically indicated we have ongoing efforts.

Senator LEVIN. I am talking about your written testimony which is now part of the record.

Mr. TAFT. I understand that.

Senator LEVIN. Mr. Taft, I think we ought to at least agree on that.

Mr. TAFT. Well, I wonder if I could just say a few things about it, since you have made a point of it, and I think it is a point that causes me some concern. I think you think it is an important point, and I do not disagree with you.

But if I may, it seems to me that it is more important to say to the Committee today, as it was important to say to the Committee in July, what we are doing. Some of the problems that we have continue to require the same solutions. If we are doing something now that we were doing then, it should not be omitted from our statement this morning as an important thing. It should be updated; it should be current; but if we are still doing it, it has every reason to be there.

You know as well as I do the way that statements are prepared, and this long one, I readily acknowledge, was not prepared by me. And I was not aware of the extent to which you pointed out, and I am not aware even now fully, but of the extent to which it tracked earlier statements that the Committee may have received, or the task force, in its capacity as the task force. If a purpose would be served by making some cosmetic changes where the substance of the department's work is really the same, I think we could do that. It would certainly be more graceful, and I think it would probably be desirable and show a more definite application to the issue each time. I regret that that was not displayed here.

But I do think that it is important that a statement of the sort that is submitted for the record to the Committee should be comprehensive and cover everything we are doing. And if we were doing some of those things—as I hope we were—12, 15 months ago, that is not a reason to omit them in my statement.

Senator LEVIN. Obviously, no one is suggesting they should be omitted. Nothing has happened in a year is what this shows. It is the same item, almost the same words.

Mr. TAFT. These passage are descriptive of continuing actions.

Senator LEVIN. "A major revision of the * * * MILSTRAP manual is being staffed with the Services and DLA." This is, what, a year ago, a year and three months. "The MILSTRAP manual is being revised."

Mr. TAFT. Well, we have issued a new directive governing these areas.

Senator LEVIN. And you say—wait a minute. You know, you say here, "The following are examples of significant actions we have underway"—and then you say, "We are developing changes to our systems which will establish a closed-loop system." A year and three months ago, "We are developing a material receipt acknowledgment which will establish a closed-loop system." Nothing has changed. A year and 3 months later, you are giving the same list he gave us—which troubles me enough that nothing has happened in a year and three months since that task force went into this. I have got to tell you the use of actually the same language by two different witnesses before two different Committees troubles me a great deal. It is reflective of the fact, I believe, that nothing substantive has happened in a year and three months. It is also, I believe, very disturbing.

If that is the practice, then the practice ought to be changed. Because, heck, we might as well take this testimony from a year and three months ago and read it. You might as well have submitted his testimony. In fact, we might as well be sitting here a year and three months ago since nothing much has changed in a year and three months.

Mr. TAFT. I disagree very strongly with your statement that nothing has happened.

Senator LEVIN. And I do not want to go to a second hearing on the same subject and hear the same testimony.

Mr. TAFT. I disagree very strongly with that, Senator. I think that you have taken some things that are on page 34. There is a great deal of important updates on pages 1 through 33.

Senator LEVIN. Well, I am afraid to read that.

Mr. TAFT. Well perhaps you should.

Senator LEVIN. I have not even gotten to that. I just said some of this looks familiar to me. I just actually checked this right now while we were sitting here, because some of this looked awfully familiar. I was just wondering where this came from. I have not even checked the rest of the pages. But it is more than just page 34. It is page 34, 35, 36 and the conclusion.

Mr. TAFT. These are a description of the very programs we have been discussing.

Senator LEVIN. It is very disconcerting, and I think you ought to at least acknowledge that it is understandable why at least this member of the Committee, and, I think all of us, would react the same way, frankly. It is very disconcerting to be given, in effect, big chunks of testimony of a year-and-a-third ago, presented as current. You are presenting this as current testimony today, and those pages, at least, are no more current today than they were a year-and-a-half ago.

Now, I am going to go back and check his testimony of a year-and-a-half ago. I am wondering if that may have come from a hearing before that. I mean, if there are 430 reports that the GAO has issued and the Defense auditors have issued recommending changes over these last I do not know how many years or decades, I am just wondering whether or not every year the Senate is presented testimony and nothing has really changed. It is very technical, hard to follow.

At any rate, the bottom line is that I think it is very, very bad form not to attribute huge chunks of testimony to its source, and more important, I think substantively what it implies and symbolizes is that a year-and-a-half has past and the things which are currently under way of significance listed that way are the same things as were listed a year-and-a-half ago without any attribution or acknowledgment they were part of a presentation of a year-and-a-half ago.

So that is my feeling on it. It is something I feel very strongly about, and to me it colors the presentation. It is very difficult to even analyze what progress has been made when we have chunks of statements from prior hearings that are used without attribution, lists of current activities that were current a year-and-a-half ago without any attribution. I find that, frankly, very disturbing,

reflecting of the whole problem here, which is that nothing seems to change.

My time is up.

Mr. TAFT. If I may just, Senator, I think I have made it clear that I regret the sense that you have. The testimony that Mr. Schriber gave was describing things, the directive that we have now issued, which was in draft at that time, and described things that we were going to undertake then. My testimony today, it seems to me, quite correctly, should express that we are continuing to do these things, and that is what it does. It should be fresher, and we will attempt to fix that. I hope that in my oral presentation, which was prepared, that we had the most current and original aspects of it. As I say, the prepared statement is, of course, intended for the record, not to be presented at length in the hearing.

Senator LEVIN. Let me if I could, Mr. Chairman, just have one more minute.

Before the list on page 35, these are the words from your statement: "Many of our policy issuances have been revised and strengthened recently." These are the words from Schriber's testimony: "Many of our policy issuances have been revised and strengthened recently."

You go on to say, "Additional revisions are now in process." He said, "Additional revisions are now in process." Verbatim.

You say, "The following are examples of significant actions we have underway." He said, "The following are examples of significant actions we have underway."

Now, you can say that your list—well, they describe exactly the same actions. The items on the list are described verbatim by you and by him as, "These are significant actions we have under way." "Additional revisions are now in process." This is not a situation where he said that this was something in draft and you say is now final. There is no implication of that.

I have more than used my time, but the introduction to the list—again, the list is very similar—is exactly the same so that nothing has changed. They are "under way." "Many of our policy issuances have been revised and strengthened recently." Verbatim.

Mr. TAFT. It does not make it untrue, Senator.

Senator LEVIN. It does not make it untrue. It means it is not new.

Mr. TAFT. It could be true then and true now. That was the assertion, and that is our statement.

Senator LEVIN. Then it is not new. His "recently" was a year-and-a-third ago, but nothing has happened since then.

Mr. TAFT. There are other things which have happened and which are new.

Senator LEVIN. When you tell this Committee that "Many of our policy issuances have been revised and strengthened recently," we have to assume it means recently.

Mr. TAFT. We did put out this new instruction recently since Mr. Schriber testified.

Senator LEVIN. Yes, but his items are exactly your items. You have added two.

Mr. TAFT. Yes, I have some new ones.

Senator LEVIN. Yes.

Mr. TAFT. And this is an attempt to be sure that the record of the Committee, and, as I say, everything that I have presented to the Committee orally here, is to insure that the record of the Committee is complete.

Senator LEVIN. You both say, "The following are examples of significant actions we have under way." He is saying "we have under way," his four; you say, "we have underway," his four plus two—without a reference, by the way, to his testimony.

Again, you can argue all you want as to whether the list should be more clearly identified as to what is current and what is not. I am just telling you that when you use language, huge chunks of it, from prior testimony without attribution in an area where the whole issue is whether anything ever changes—the whole point is: Does anything ever change here? We have year after year after year of reports by the GAO and your own auditors which say that we are not making any progress on this inventory control. Then when you take pages without attribution from testimony of a year-and-a-third ago, I can just tell you that reinforces the impression that we have, or some of us have, that nothing has changed.

It is, in any event, wrong. It is simply wrong, I believe, to take somebody else's testimony and not give proper attribution to it. By the way, I am not saying you prepared this testimony or that you took it. I presume it was someone on your staff. So I am not suggesting that you went to Schriber's testimony and took off paragraphs of his testimony. I assume somebody on your staff did it. But it is wrong for whoever did that to do it without attributing it and without saying, "As we told the task force a year and three months ago," X, Y, and Z. It is just the wrong way to do it, and it raises real concern on my part as to the substance as to whether anything, in fact, has changed.

Mr. TAFT. Well, I would only say that I hope you would look at the actual substance. I think that there are things that have changed. I think the GAO said so, described them earlier in testimony, and things that we are doing and should do, and I have discussed several of these this morning. And there have been things going on, and I think that you should be aware of them and support them.

Senator LEVIN. Thank you.

Chairman GLENN. What it does show, just to follow that up with one other comment, is that if we had been making any progress, the same four things that you started off with would not necessarily still be on the list.

Just a couple of comments here. Earlier today, I believe you indicated the stocks that were in potential excess and were going to be disposed of were running about the same amount for many years. In going back to 1965, the amounts in billions of dollars of items in excess that would be disposed of ran 3, 2.5, 2.6, 3.3., 3.7, a high one time of 4.2, 3.9, 2.7, 2.7, on down through the years, 2.4., 2.2, 2.6, 2.5, 3.0, 3.0, up until we get up to 1984. All at once it pops up to 7.1, 5.6, 5.5 in the last three years. That is about double what it was before all through that whole 20-year period, 22-year period going back to 1965.

So we have popped up considerably. Now, I do not know whether your figure you gave was a percentage figure or not. I think the percentages are larger.

Mr. TAFT. Yes, it is a percentage. It does track, actually, as percent of the total inventory.

Chairman GLENN. We have popped up about double what anything was before, which indicates we still need a lot of effort in that area.

Let me ask something in a different area, too, here. I know our time is out. But the Ships Parts Control Center actually sent a letter out asking the private civilian contractors that they had sent material to for overhaul or rework, and actually asked them to send back data on what Navy material they had because the Navy did not have any idea of what was out there. That is pretty poor inventory control.

What has been done to correct that?

Let me just follow up a little bit on that, too. As a result of that, the Center then adjusted its financial records by $620 million and suffered a net loss of $464 million with no assurance that such adjustments were even accurate at that point. Now, when we asked them about this, they said there was no loss of $464 million; there was simply a paper adjustment to bring the Navy's records in line with the official inventory records which were maintained by the contractors.

Mr. TAFT. Yes. Well, Mr. Chairman, that is, in fact, the situation as I understand it. The way that we do this is to certify after we examine the inventory and accounting systems of the contractor in these cases. We approve them or disapprove them. If we disapprove them, they have to come up to snuff.

Chairman GLENN. I know, but the Navy does not know what it sends to these people to be overhauled?

Mr. TAFT. Yes, it does. The contractor who is in charge of that inventory if he has an approved system, keeps track of the inventory. This contractor keeps the inventory records in accordance with the proper procedures.

Chairman GLENN. We just send the expensive items off to a contractor and say we just trust him to take care of them and tell us how many were received, were shipped out and so on? We do not check that? The Navy does not keep a record on what they sent from any given facility?

Mr. TAFT. The Navy keeps a record to verify contractor records, and they approve the contractor's procedures.

Chairman GLENN. Say that again.

Mr. TAFT. They keep a record of his inventory system, and it is approved or disapproved.

Chairman GLENN. They keep his figures?

Mr. TAFT. In this case it was, they aprove the contractor's system.

Chairman GLENN. They just accept his figures, then, is what you are telling me.

Mr. TAFT. If he has a system that is approved for that purpose, that is right. That is why they approve the system, to assure that his system is usable by Navy. If it is not usable by Navy, then they

would not use it. This one in this particular case was approved, I understand.

It is a question of whether the DOD should duplicate everything that the contractor does or make him do it for Navy. And they check him. They do check the contractor and see if he is properly accounting for materiel.

Chairman GLENN. How do they check if they do not know what they sent him?

Mr. TAFT. Before they approve his system, they insure the system will account for inventories.

Chairman GLENN. Well, these are ongoing contracts. I am sending him X number of things to be overhauled———

Mr. TAFT. These quantities are included in his inventory system———

Chairman GLENN [continuing]. And I do not even bother to track them. I say I will ship 50 of them today and 5,000 tomorrow, and I just depend on him to give me my 5,000 and my 50 back at the end of this thing. I do not even keep records on what was sent to him.

Mr. TAFT. Because the system that he has for doing that is one that they have approved and where the records are available for audit.

Chairman GLENN. We have had problems time after time after time in defense contracting with TRW, General Dynamics, and many others that were not honest with us. They overcharged; they did all sorts of things. Inventory was not what it was supposed to be and so on. We had people that were going to jail over those things.

Now, why would we take a contractor and say we just trust you, when we know that a lot of them have not been worthy of trust? I cannot believe that we are sending expensive items to these people and are not even keeping a record on what we sent to them. Instead, we are just trusting them to do a good job and believe they will send back the same number they got without us keeping records on it.

Mr. TAFT. The contractor keeps the records. The purpose here is to let the contractor do the work but have the records available for review.

Chairman GLENN. That is the point, though. The Navy does not keep ts own records on this, apparently. We are just trusting someone to give us back what we sent to him for repair—all we say is you guys have a nice accounting system here so we will send you X thousand of these items. We hope we get back what we sent in. Is that correct?

Mr. TAFT. No, sir. What happened in this case—and actually, as you know, in fact, the system is being changed to be sure that it works, that the Navy in improving its system. But as it worked at this time, the system was that a contractor—and this was not the only one—a number of them can say to the Navy that they have and approved system in place, and if they can prove this, and if it is approved then by the Navy, then they have in place an approved system for keeping track of inventory. The Navy looks at that system; and if it meets the Navy's standards and is approved as an accounting system and as an inventory system which has the nec-

essary controls, they could go back and check the operation of that system later on in various ways.

Chairman GLENN. But how could they check it because they do not even know what they sent to them?

Mr. TAFT. They would check it to see that that system is still being operated the way that it was when they approved it.

Chairman GLENN. Well, let me take a different tack——

Mr. TAFT. They run a specific item through the inventory system and check the results against known records.

Chairman GLENN. How can you say the system worked and is a good system if you are changing it, number one, and, number two, we wrote off $464 million because the system was not operating right?

Mr. TAFT. Well, an adjustment was made because the system said that adjustment should be made.

Chairman GLENN. Something was missing that we did not know where it went.

Mr. TAFT. I believe it was at the contractor's plant.

Chairman GLENN. I feel like I am going around chasing my tail here a little bit.

How do you write off $464 million without having some reason for writing it off? You must have had some idea that something was wrong.

Mr. TAFT. My understanding was there was a disparity in the two accounts.

Chairman GLENN. Of what the Navy thought they had sent and what the contractor had?

Mr. TAFT. What the Navy had a record of sending and what they had actually sent. Navy did an analysis and determined that they should adjust their accounts because they had not properly recorded shipments to the contractor.

Chairman GLENN. Because we had missing items and did not know where they were and did not know whether it was the contractor causing the problem or not because we had no records; is that correct?

Mr. TAFT. I do not believe that that was the way that this worked, Mr. Chairman.

Chairman GLENN. Why do we take the word of the contractor? If we were going to take the word of the contractor, all we would have to do is have a verbal agreement that they will produce something or do a certain service. There would not be any need for a contract. If we are going to just trust the contractor to do what he is supposed to do out there, we would not need anything else except his word on it. I wish we lived in that kind of a world.

Mr. TAFT. No, Mr. Chairman, you do not just trust the contractor, as you put it. What you do is you look at the system that he has; if that system is satisfactory, has the proper controls, accounting procedures and principles observed, then you say, okay, that system is approved for this purpose. This was the way that the process works.

Instead of our keeping all the records, the contractor would be doing it. The Navy checks to see that the contractor still has that system in place and if it still is up to snuff, they use it.

You mentioned that we have a very big job here to do, but one of the things that can make it possible to do it better is to get contractors to do it for us and to spot-check them, to audit them from time to time to see that their systems are working. This is part of that program.

Chairman GLENN. Well, what if somebody in the receiving department of that company says, okay, I see an opportunity for a little private entrepreneurship, and he takes 50 instruments out of a batch of 500 that are coming in. And then it is counted into the system. Then the system shows they received 450 instead of the 500 because that is the official count.

So it goes through the process, and the accounting system of the company looks great, and the Navy gets back 450. The Navy would not even know they got ripped off for the other 50 because they did not keep any record of what was sent to begin with. Is that not correct?

Mr. TAFT. That would be correct if the contractor had a system in place that permitted his employee to be able to do that and not have them find it out. In fact, before their system would be approved by the Navy, it should not permit such actions. He has to have a system that is approved, a system that lets his employees rip off the Navy would not be approved.

Chairman GLENN. I have never heard anything like that.

Mr. TAFT. It should not be.

Chairman GLENN. Did your bank ever call you and say, "How much is in your checking account? Because our records are all screwed up and we do not know what is in your checking account. We would appreciate it if you would let us know"?

Mr. TAFT. I do not think that is the same case, Mr. Chairman.

Chairman GLENN. It is exactly the same. If they call you as the customer and they are telling—you do not have any records. You are asking them. There is apparently no record that the Navy keeps on this, and apparently you must feel there is something wrong with this situation because you are planning to correct it.

Mr. TAFT. We think that we can do better.

Chairman GLENN. You just wrote off half a billion dollars because the system was not working right, so we know that happened. I just cannot believe you are trying to defend this system where the Navy keeps no record on it.

That is one we will certainly want to follow up on with some questions. We have run over our time. I know you had a commitment at 12. I do want to get into one other thing, too, and that is back to the Air Force excesses on still-to-be-delivered items.

Why cannot we terminate those contracts? We have got $600 million out there apparently in on-order material. We know it is going to be excess. We know it is going to be put over in a potential excess category. Yet we are letting the material be delivered even though we know there is no use for it.

Can we not save money by terminating the contract, taking a termination penalty, whatever it might be, and at least not bring the material in and have to inventory it and have to do dispose of it.

Mr. TAFT. Mr. Chairman, if those items can be stopped, they will be stopped.

Chairman GLENN. Okay. That is one I would appreciate you letting us know about, because it just seems to me there are so many items that we have gotten into where we can save many, many billions of dollars. We are going to certainly want to follow up on it.

I appreciate your coming over this morning. Thank you. We may have additional questions from other members of the Committee and from me in addition that we will include in the record.

Thank you very much.

Mr. TAFT. Thank you, Mr. Chairman.

[Whereupon, at 12:13 p.m., the Committee adjourned, subject to the call of the Chair.]

APPENDIX

INTRODUCTORY STATEMENT OF STEPHEN RYAN,
SENATE GOVERNMENTAL AFFAIRS COMMITTEE STAFF,
ON
DOD INVENTORY GROWTH

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE, I AM HERE TO PRESENT A BRIEF INTRODUCTION TO DOD'S SECONDARY ITEM INVENTORY GROWTH. THE PURPOSE OF MY PRESENTATION IS MERELY TO SET THE STAGE FOR THE DIALOGUE TODAY. SECONDARY ITEM INVENTORIES IS A TERM OF ART WHICH APPLIES TO SUCH THINGS AS REPAIR PARTS, SUPPLIES, AND CLOTHING, AS OPPOSED TO PRINCIPAL ITEMS SUCH AS TANKS, SHIPS, AND AIRCRAFT. IT IS IMPORTANT TO CONSIDER THE PROBLEMS DOD IS EXPERIENCING IN MANAGING ITS SECONDARY ITEM INVENTORIES IN THE CONTEXT OF THE LARGE GROWTH IN THESE ITEMS THAT HAS OCCURRED SINCE 1980.

DOD'S INVENTORY CONTAINS AN ESTIMATED 4.5 MILLION DIFFERENT ITEMS. DOD WAREHOUSES, PARTICULARLY AT THE WHOLESALE LEVEL, ARE NOW FILLED OVER CAPACITY. DOD'S SECONDARY ITEM INVENTORY AT THE WHOLESALE LEVEL HAS GROWN FROM $43 BILLION IN 1980 TO APPROXIMATELY $90 BILLION IN 1986-ROUGHLY DOUBLING DURING THOSE YEARS. STAFF HAS PREPARED A SERIES OF CHARTS TO ILLUSTRATE THIS GROWTH AND SOME OF ITS IMPLICATIONS. I HAVE DISCUSSED THESE CHARTS WITH

KNOWLEDGEABLE OFFICIALS FROM DOD AND GAO WHO AGREE THAT THE INFORMATION CONTAINED IN THESE CHARTS IS ACCURATE.

CHART I DISPLAYS THE VALUE OF THE SECONDARY GROWTH FROM $43.4 BILLION IN 1980 TO $89.6 BILLION IN 1986. THUS, IT MORE THAN DOUBLED WITH A 106 PERCENT GROWTH RATE DURING THE PERIOD. THE INCREASE TOTALLED $46.2 BILLION, MAKING THE INCREASE GREATER THAN THE TOTAL 1980 INVENTORY.

CHART II SHOWS THE AMOUNT OF DOD'S INVENTORY THAT IS IN "LONG SUPPLY". LONG SUPPLY IS AN INFORMAL DOD TERM TO DEFINE STOCK THAT HAS NO KNOWN PRESENT PEACETIME OR WARTIME REQUIREMENT. AS THE CHART ILLUSTRATES, THE VALUE OF ITEMS IN LONG SUPPLY GREW FROM $10.2 BILLION IN 1980 TO $29.5 BILLION IN 1986. THIS GROWTH OF $19.3 BILLION REPRESENTS AN INCREASE OF 189 PERCENT FROM 1980. I'D LIKE TO ADD THAT IT IS GENERALLY AGREED BETWEEN GAO, DOD AND COMMITTEE STAFF THAT GROWTH IN LONG SUPPLY IS "BAD" GROWTH. WHEN THESE LONG SUPPLY STOCKS WERE PURCHASED, THEY WERE PRESUMABLY PURCHASED TO MEET A SPECIFIC NEED. THAT IS, DOD DOES NOT HAVE THE AUTHORITY TO INTENTIONALLY ORDER STOCK FOR LONG SUPPLY. STOCK ENDS UP IN THAT CATEGORY BECAUSE SOMEONE MADE A MISTAKE AND ORDERED TOO MUCH OR CIRCUMSTANCES SIGNIFICANTLY CHANGED TO REDUCE THE ANTICIPATED DEMAND FOR THE ITEM. SOME LONG SUPPLY STOCK WILL BE USED IN THE FUTURE. OTHER STOCKS ARE HELD FOR CONTINGENCIES ALTHOUGH THERE IS NO PREDICTABLE DEMAND OR QUANTIFIABLE FUTURE NEED FOR THE GOODS, AND THERE

ARE NO CURRENT PLANS TO USE THEM IN TIME OF WAR. FINALLY, APPROXIMATELY $5.5 BILLION IS BEING HELD AWAITING DISPOSAL FROM THE SYSTEM.

CHART III-A COMPARES THE DOLLAR GROWTH OF LONG SUPPLY INVENTORY AND APPROVED FORCE ACQUISITION OBJECTIVE (AFAO) INVENTORY. AFAO IS THE INVENTORY NEEDED TO MEET NORMAL PEACETIME OPERATING CONDITIONS AND WAR RESERVES REQUIREMENTS. WHEN ONE LOOKS AT ACTUAL DOLLAR VALUE OF AFAO VERSUS LONG SUPPLY, IT SHOWS LONG SUPPLY GOING FROM ONE-THIRD OF THE VALUE OF AFAO IN 1980 TO ABOUT ONE-HALF IN 1986.

CHART III DISPLAYS A PERCENTAGE COMPARISON OF DOD SECONDARY ITEM INVENTORY GROWTH FROM 1980 TO 1986. IN ESSENCE, THIS CHART IS MERELY ANOTHER WAY OF VISUALLY COMPARING THE TRENDS IN DOLLAR GROWTH SHOWN IN CHART III-A. THIS CHART IS A PERCENTAGE REPRESENTATION WHERE THE 1980 FIGURES FOR THE AFAO ($43.4 BILLION) AND LONG SUPPLY STOCKS ($10.2 BILLION) ARE MADE TO EQUAL 100 PERCENT. THE AFAO INVENTORY GREW APPROXIMATELY 90 PERCENT DURING THE 6 YEAR PERIOD WHILE THE LONG SUPPLY INVENTORY GREW APPROXIMATELY 189 PERCENT.

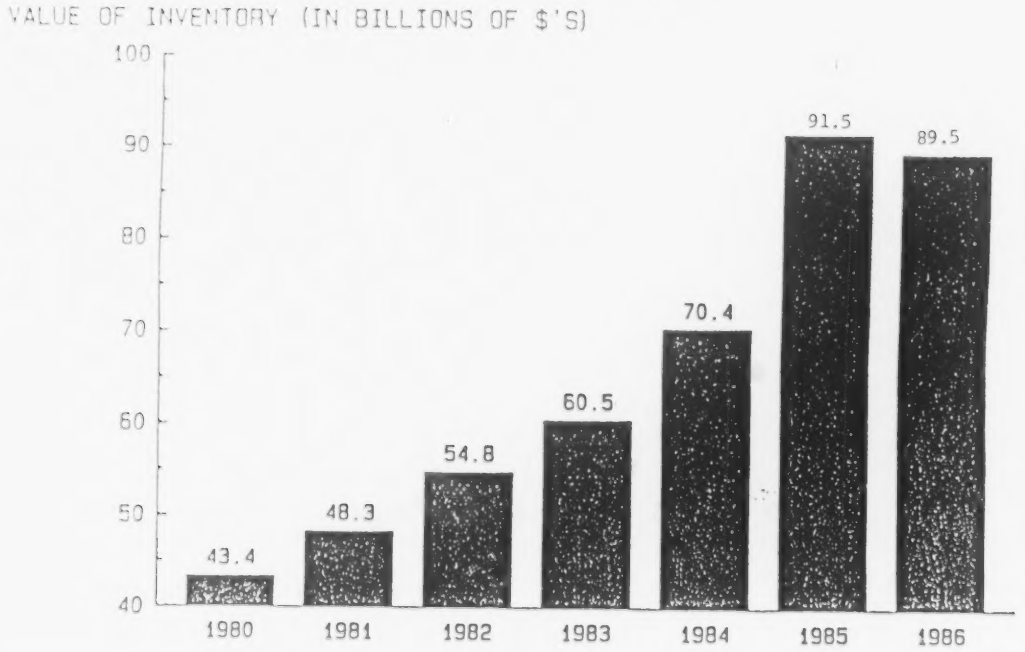
CHARTS IV AND V ILLUSTRATE SOME ASPECTS OF THE DEMAND AND AVAILABILITY FOR SECONDARY ITEMS DURING 1980-1986. CHART IV SHOWS THAT DURING THE 1980-1986 PERIOD WHEN THE SECONDARY INVENTORY WAS GROWING BY OVER $46 BILLION, THE NUMBER OF

DEMANDS (OR REQUESTS) FOR SECONDARY ITEMS REMAINED RELATIVELY CONSTANT. THE NUMBER OF DEMANDS INCREASED ABOUT 11 PERCENT FROM 1980 TO 1984 (FROM ABOUT 29 MILLION TO NEARLY 32 MILLION). BY 1986, THE NUMBER OF DEMANDS HAD DROPPED BACK TO THE 1980 LEVEL.

CHART V DISPLAYS THE SUPPLY AVAILABILITY OF SECONDARY ITEMS. SUPPLY AVAILABILITY MEANS THE ITEM IS AVAILABLE IN THE INVENTORY WHEN IT IS NEEDED. FROM 1980 TO EARLY 1987, SUPPLY AVAILABILITY REMAINED RELATIVELY CONSTANT. THE PERCENTAGE OF DEMANDS SATISFIED WAS 87.2 PERCENT IN 1980. BY 1987, DEMANDS SATISFIED HAD DECREASED A FEW POINTS TO 84.8 PERCENT. CHARTS IV AND V ILLUSTRATE THAT DEMAND AND AVAILABILITY REMAINED RELATIVELY STATIC DESPITE THE SIGNIFICANT INCREASED INVESTMENT.

THIS CONCLUDES MY PRESENTATION.

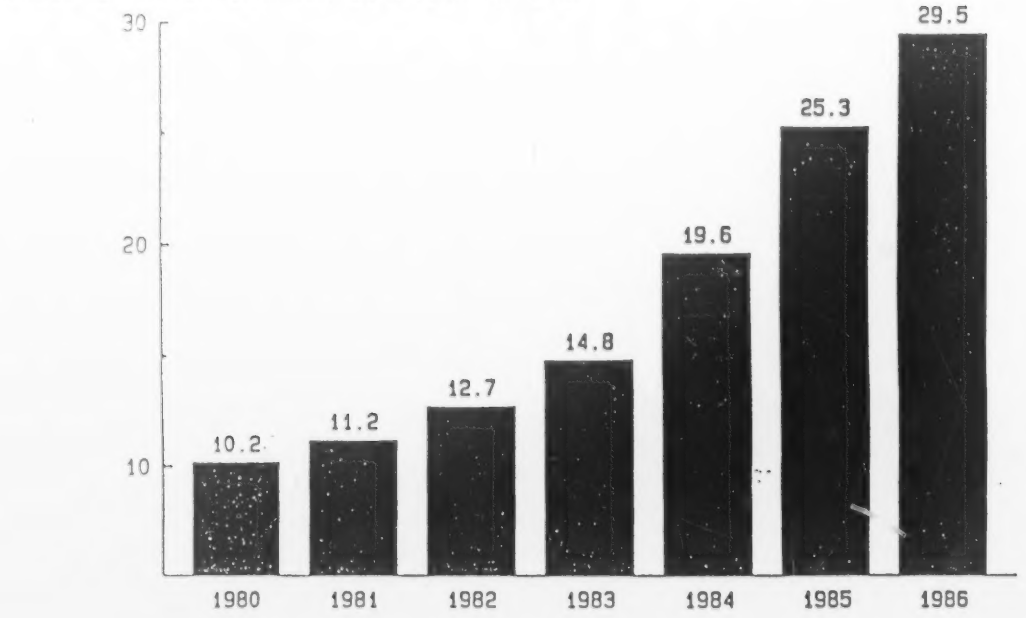
DOD INVENTORIES OF SECONDARY ITEMS
OVERALL GROWTH 106 PERCENT
1980-1986



Secondary items include:
spare parts, repair parts and commodity items
source: DoD Supply System Inventory Report

CHART I

SECONDARY INVENTORIES OF LONG SUPPLY
OVERALL GROWTH 189 PERCENT
1980-1986



Secondary items include:
spare parts, repair parts and commodity items
source: DoD Supply System Inventory Report

CHART II

DoD INVENTORY OF SECONDARY ITEMS
% GROWTH OF AFAO vs. LONG SUPPLY

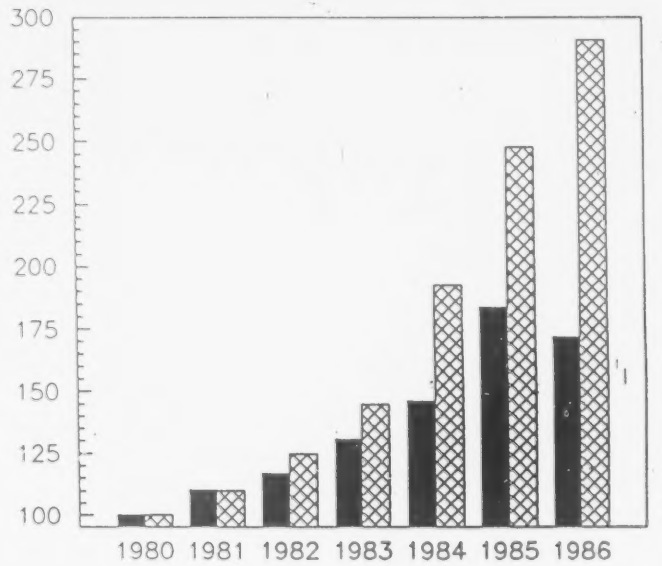


CHART III

* AFAO is the Approved Force Acquisition Objective stock, which includes war reserves and peacetime operating stocks for the budget year.

** Long supply is stock with no known present peacetime or wartime requirements.

DoD COST OF SECONDARY ITEMS
AFAO VS. LONG SUPPLY

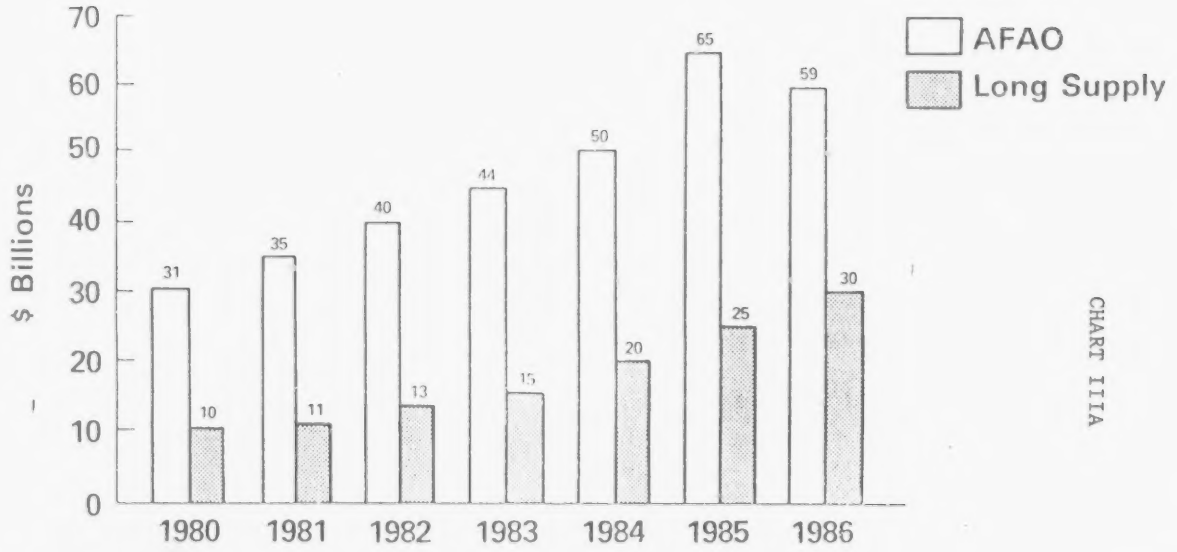
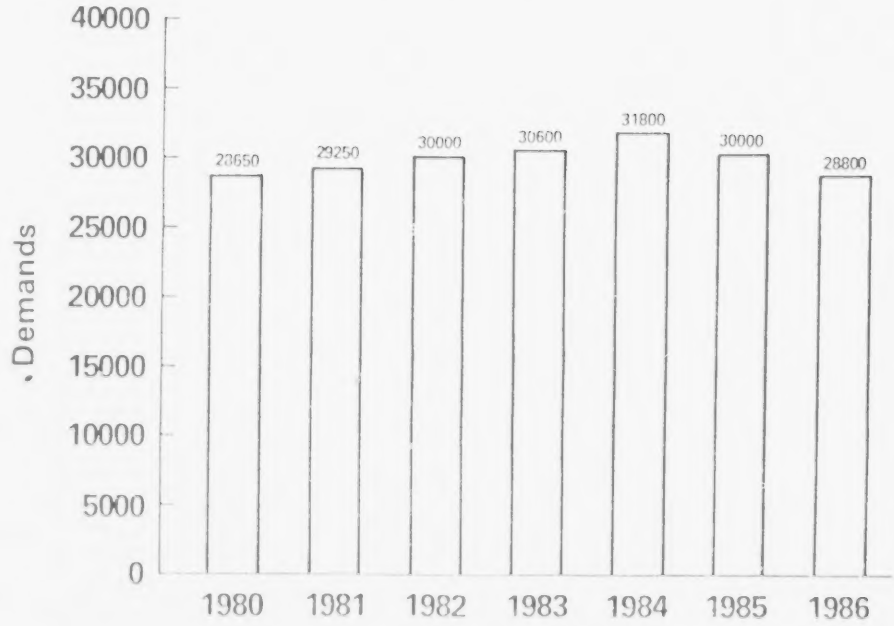


CHART IIIA

DEMANDS FOR SECONDARY ITEMS
(in 000s)



Secondary Items Include:
Spare Parts, Repair Parts and Commodity Items
Source: DoD

CHART IV

SUPPLY AVAILABILITY OF SECONDARY ITEMS

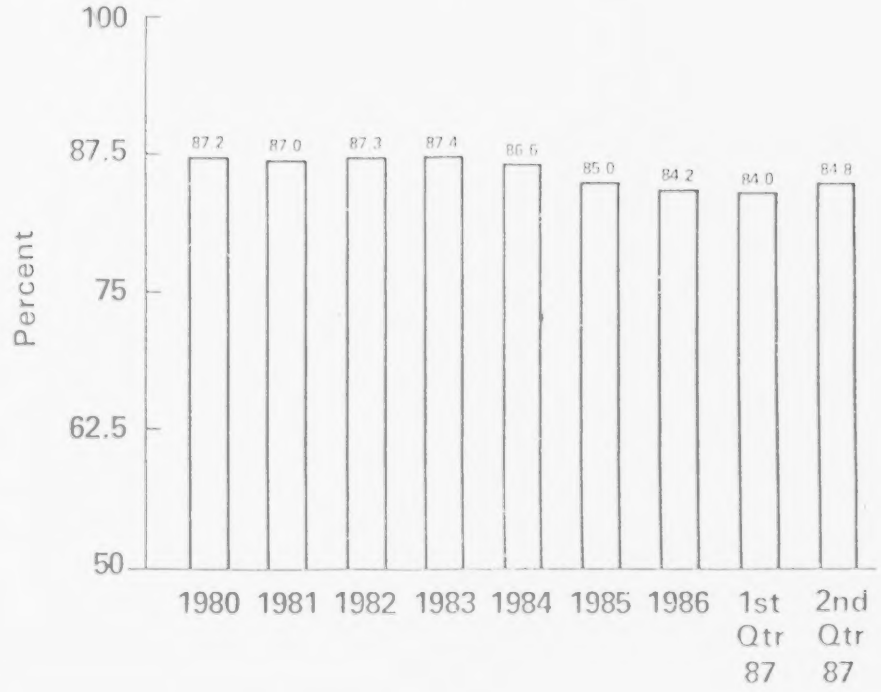


CHART V

Secondary Items Include:
Spare Parts, Repair Parts and Commodity Items
Source: DoD

STATEMENT FOR THE RECORD OF
CHARLES A. BOWSHER
COMPTROLLER GENERAL

Mr. Chairman and Members of the Committee:

We are pleased to be here today to discuss inventory management in the Department of Defense. Today, effective management is more important than ever because of the growth in DOD inventories.

In this overview today, and in a series of more detailed reports, we address the problems DOD has in assessing how well its inventories are managed.

RESULTS IN BRIEF

In the last several years, we and DOD audit agencies have issued numerous reports addressing serious inventory management deficiencies, such as inaccurate inventory records, poor physical inventory controls, and inadequate controls and accountability over government property furnished to contractors.

Last year, DOD revised its 1982 5-year improvement plan to address many specific inventory-management problems. Also, after we issued our overview report on supply system problems in May 1986, DOD identified, for the first time, inventory controls as a DOD-wide concern in its annual Federal Managers Financial Integrity Act report to the President and the Congress. However, our current work shows that DOD does not have accurate data on which to base

management decisions. Therefore, DOD needs to place increased emphasis on inventory management, particularly because of inventory growth over the past few years, which has added to previous problems.

The value of DOD's inventory of secondary items, such as repair parts and supplies, is estimated at over $90 billion, almost twice as large as it was just 5 years ago. This inventory may be more than DOD needs or can efficiently manage. For example:

1. There has been a significant increase in the amount of secondary-item inventories excess to requirements. At the beginning of fiscal year 1987, these excesses were valued at $29.5 billion, up from $10.2 billion in 1981.
2. DOD has bought large amounts of repair parts, in support of newly fielded systems, that are not needed to support the systems in the first few years of their operations.
3. DOD warehouses are being filled to capacity, resulting in DOD relaxing its policy of not disposing of any item supporting a weapon system still being used.

We are completing reviews on a number of inventory management issues, which we will be reporting on over the next few months. This overview statement concentrates on three areas: (1) the accuracy of inventory records, (2) the effectiveness of research to identify the causes of inventory discrepancies, and (3) the physical protection of DOD assets.

Concerning the accuracy of inventory records, we found several problems with DOD's current reporting system, including DOD policies that allow some data to be incomplete, and examples where the services' practices merely make the accuracy indicators look better without contributing to improved management. Overall, we found that inventory accuracy is much less than DOD's reported accuracy indicates. We also found a growing trend for DOD to do more unscheduled inventory counts directed at investigating known inventory discrepancies. In itself, this is an indicator of a growing management problem.

Because of the problems we found, management cannot rely on reported inventory accuracy as a basis for identifying potential problems and taking corrective actions. To get a representative view of inventory accuracy, we conducted our own statistically-valid inventory counts. Our results show that inventory accuracy can range much lower than the accuracy reported by DOD. Also, we developed data on quantity accuracy--something DOD does not currently do, but should.

Turning to the issue of research--which is supposed to identify the causes of inventory discrepancies so management can take corrective action, we found that the services' and DLA's research is not effective because it (1) sometimes is done just to make inventory accuracy reports look better, and (2) generally does not identify

the causes of inventory variances. Some DOD officials are now questioning whether such research should be done at all, especially in light of continuing reports by us and others that much of the research that is performed is ineffective.

Finally, turning to the area of good physical security--a prerequisite of good inventory management--we testified last year that we had made undetected entries into Army and Air Force supply warehouses in Europe. In our current work, we again found inadequate security at some of the areas we visited. In all cases, the services and DLA are taking corrective actions in response to the security shortcomings we noted.

BACKGROUND

Last year, we reported to the Chairman of the Senate Armed Services Committee's Task Force on DOD Inventory Management that there was a wide range of DOD inventory management problems.[1] At that time, the scope of our work was to look at the entire supply system. Our report and later testimony before the Task Force provided a snapshot of supply system problems. Because we found problems at all 30 locations we visited, we considered our findings representative of DOD inventory management problems. What we could not do within the scope of that effort was to identify the

[1] Inventory Management: Problems in Accountability and Security of DOD Supply Inventories, NSIAD/GAO-86-106BR, May 23, 1986.

magnitude of the problems, the causes, and the corrective actions needed. As a result, the Task Force and this Committee asked us to take a more detailed look at several aspects of DOD inventory management. Today, we are providing an overview of our assessment of DOD inventory accuracy. We recently issued our report on the Army's inventory accuracy; and we will issue reports on the Defense Logistics Agency (DLA), the Navy and the Air Force shortly. In the next few months, we will also be reporting on the other areas we are reviewing, such as contractor access to DOD's supply system and the management of government material furnished to them.

Inventory management in DOD is an extremely large, complex task in which one can never expect 100-percent accuracy. It is an area with a long history of problems, and DOD is taking many corrective actions. It is an area where financial management reform could produce significant improvement.

Mr. Chairman, in my recent testimony on your proposed legislation--the Federal Financial Management Reform Act of 1987 (S.1529)--I reiterated my strong belief that a legislative underpinning is crucial for success of the reform efforts. The Act would provide many of the essential elements for successful financial management reform, including centralized leadership to plan and direct the improvement efforts and corresponding leadership in executive departments and agencies to implement the plan. Your proposed legislation may be the impetus needed to correct the management and

accountability problems, such as those we will discuss today and others that are being increasingly highlighted in a wide range of areas throughout the government.

MAGNITUDE OF DOD SUPPLY SYSTEM

To support its weapon systems, base operations, and other activities, DOD's supply system contains an estimated 4.5 million different items. There is no comparable supply system anywhere. While the sheer magnitude makes it a challenge to manage, the magnitude also makes it imperative to have good management to promote efficient and effective operations, support military missions, and protect the inventories from fraud, waste, and abuse.

LONG-STANDING PROBLEMS PERSIST

When we started our work last year, we identified and reviewed 347 reports, issued between 1981 and 1985 by us and DOD audit agencies, which reported on various DOD supply system problems. Over the years, such reports have led to congressional concern and DOD actions. For example:

-- In 1981, the Congress investigated large increases in the value of inventory adjustments at naval supply centers--from $67 million in fiscal year 1978 to $504 million in fiscal year 1981. The investigation and later hearings in February 1982 established that the large increases were symptomatic of serious inventory management deficiencies,

e.g., lack of management concern and accountability, and ineffective physical inventory controls.[2]

-- In April 1983, follow-up hearings were held on the military supply systems inventory-control problems.[3] At that time, we reported that the Navy had 73 initiatives, completed or ongoing, designed to improve physical inventory controls and records accuracy. However, we also reported that the magnitude and impact of the inventory accuracy problems in the Army, Air Force, and DLA were much greater than DOD previously recognized.[4] DOD, at that time, was developing a physical inventory improvement plan that called for a series of actions through fiscal year 1985 intended to identify improvements needed in policies, procedures, and standards for upgrading inventory record accuracy.

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[2]House Armed Services Committee, Subcommittee on Readiness (1) Staff Report on Investigation of Losses at Naval Supply Centers, Feb. 10, 1982, and (2) hearing on Inventory Management Control Policies and Practices: Resource Accountability and Losses at the Norfolk Naval Supply Center, Feb. 19, 1982.

[3]House Armed Services Committee, Subcommittee on Readiness, Progress Made by the Navy in Improving Physical Inventory Controls and the Magnitude, Causes, and Impact of Physical Inventory Adjustments in the Army, Air Force, and Defense Logistics Agency, Apr. 27, 1983.

[4]Navy's Progress In Improving Physical Inventory Controls and the Magnitude, Causes, and Impact of Inventory Record Inaccuracies in the Army, Air Force, and Defense Logistics Agency, GAO/NSIAD-84-9, Nov. 4, 1983.

-- During the period from August 1983 through September 1984, the DOD Inspector General and the service audit groups performed a defense-wide audit to respond to supply system problems identified by the Congress. In August 1985, the DOD Inspector General reported that DOD and its components were responding to the congressional criticism; however, some procedures needed to be refined or revised, and the execution of others was still seriously deficient. For example, methods used to select items to be inventoried did not meet DOD policy, and causative research was not identifying and correcting causes of inventory discrepancies.[5]

In January 1986, DOD revised its 1982 5-year improvement plan to address specific inventory-management problems. After we issued our report in May 1986, DOD identified, for the first time, inventory controls as a DOD-wide concern in its annual Federal Managers Financial Integrity Act report to the President and the Congress.[6]

As we will discuss today, we believe that continued improvements in DOD's inventory management require high-level management emphasis and exploration of new ways to address the long-standing problems.

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[5]Defense-wide Audit of Physical Inventory Adjustments, Office of the Inspector General, Department of Defense, Aug. 16, 1985.

[6]Department of Defense Annual Statement of Assurance for Fiscal Year 1986, Dec. 30, 1986.

INVENTORY GROWTH HAS
INCREASED PROBLEMS

DOD's supply-system problems and congressional concerns are not unique to the 1980s--rather, their roots go back to the 1960s and 1970s. The recent large-scale military build-up, however, has added to previous problems. For example, DOD's inventory of secondary items--such as repair parts, supplies, and clothing--have grown substantially--from $48 billion in fiscal year 1981 to over $90 billion today. According to DOD, this growth primarily resulted from increased costs and the need to support its large weapon systems modernization program. However, the growth can also be attributed in part to other reasons. For example, the lead times necessary to procure inventories have lengthened for several reasons. Administrative lead time has increased to compensate for DOD initiatives and congressional legislation to expand competition. Longer lead times result in larger inventory investment to support systems during this time. DOD estimates that each day of lead time may add up to $40 million to the budget.

While DOD's readiness and sustainability missions and goals require it to maintain a certain level of inventory, there are indicators that DOD's inventory growth may be resulting in substantial investment beyond that needed to meet its missions. These indicators are

-- a significant increase in the amount of inventory items excess to requirements;

-- DOD may be buying too much too early to support the newer, more sophisticated weapon systems; and
-- DOD's admission that its warehouses are filled to capacity, resulting in its relaxing its policy of not disposing of any item supporting a system still being used.

It is important to note that these are only indicators of over-investment. We have not yet compiled sufficient data on which to reach a firm conclusion.

Excess items

In January 1987, we reported that excess inventory levels in the Air Force were growing.[7] For the 1-year period ending March 31, 1986, the Air Force's on-hand and on-order excess aircraft spare parts had increased from $3.4 billion to $9.4 billion. As a percentage of total inventory, the excesses grew from 9.6 percent to 25.1 percent.

In our current analysis, we found that for all of DOD the amount of secondary items identified as excess has grown almost 200 percent between fiscal years 1981 and 1987.[8] In dollar figures, these

[7]Air Force Budget: Potential for Reducing Requirements and Funding for Aircraft Spares, GAO/NSIAD-87-48BR, Jan. 13, 1987.

[8]Excesses are identified when analysis shows that they are in "long-supply," i.e., that they exceed known requirements. Dollar figures are as of the beginning of the fiscal year.

excesses are valued at $29.5 billion, up from $10.2 billion in 1981.

While excesses can develop as items become obsolete because new weapon systems are fielded, there are indications that too much was bought to support new weapon systems. This is a difficult area to manage and needs continuing attention.

Support of new systems

There is uncertainty about what is needed to support the newer, more sophisticated weapon systems being fielded today. As a result, DOD may be buying too much too early, which contributes to inventory growth. Initially, the amount of repair parts needed are estimated and usually provided with the systems when they are fielded. Last year, we reported that repair parts inventories in Europe became too large for Army units to manage effectively--most parts were not needed to support the weapon systems in their first 2 years of fielding. Army units in Europe later returned 70 to 80 percent of these repair parts as excess to Army depots in the United States. Army officials told us that they bought too much because they did not have the engineers needed to adequately assess what the contractors said was needed to support the systems.

We also found early buys of large quantities of parts for the B-1B aircraft. The cost of spares purchased through fiscal year 1986 for the B-1B totaled about $2.3 billion. The Air Force acquired

the spares under a concept called "expanded advance buy," which involves procuring combined initial and replenishment spares in quantities anticipated to be needed to support the aircraft for 4 years. The Air Force expected cost savings of about $150 million by enabling contractors to reduce production and administrative costs.

However, because of the high degree of concurrent development and production on the B-1B, an increased risk of unstable systems and obsolete parts existed. The B-1B defensive avionics system is unstable and will require extensive modification over the next several years. As a result, some portion of the spare parts procured for this system (over $800 million as of July 1987) will likely become obsolete and require either modification or disposal. The extensive system development planned over the next several years precludes a current determination as to the cost of such modifications or the extent of disposals.

For those items that the services ask DLA to stock in support of new weapon systems, DLA data shows that on average there is no demand for 56 percent of these items during the first 2 years after a system is fielded and no demand for 44 percent during the first 3 years. In the 4-to 6-year range, there is still no demand for about 35 percent of the items.

Warehouses filled to capacity

In December 1986, DOD notified the services and DLA that warehouses were almost filled to capacity. Data showed that DOD warehouses were filled at the 88 percent level, with several large depots filled much higher. According to DOD, when warehouses are filled above 85 percent, depot efficiency and productivity suffer. As a result, DOD relaxed its requirement to retain all items held to support weapon systems currently in the inventory. This would allow some of these inventories to be disposed of. The original retention policy was required because DOD found that it was disposing of spare parts for some systems, and then buying them later, often at much higher prices.

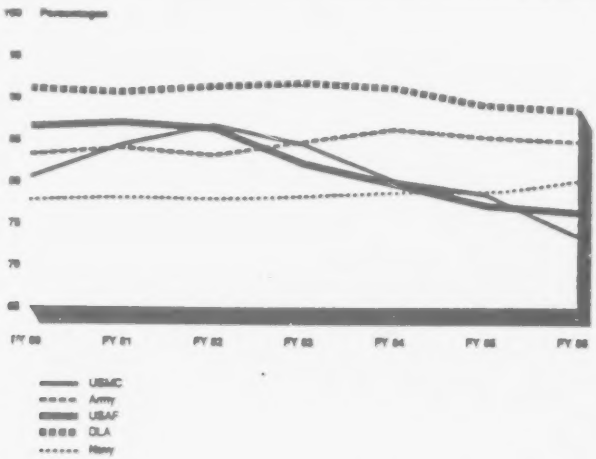
The initial requirement to hold all such support items resulted in inventory disposals of excess items decreasing from a peak of almost 5 percent of inventory in fiscal years 1978 and 1979 to less than 0.5 percent in fiscal years 1985 and 1986. As a result, DLA estimates that $1 billion of its inventory growth from 1981 to 1986 was because of this requirement.

Our observations confirm that DOD warehouses are filled near capacity. While large inventories should enable the supply systems to provide military units with what they need, the question is whether this can be done more economically and efficiently.

Overcrowded warehouses can make it more difficult to properly store and locate inventories.

DOD statistics in the following chart show that with the large-scale inventory increases since 1981, the Army's and Navy's wholesale level stock availability (how often demands for items are filled with stock on-hand) improved somewhat, while DLA's stayed the same.

DOD Stock Availability (FY 80 - FY 86)



The above chart also shows that stock availability in the Air Force and Marines decreased. According to DOD, this was because (1) the Air Force has moved a lot of items to the user level and (2) the Marines have transferred most consumable items to DLA and now manage mostly reparables.

IMPORTANCE OF GOOD CRITERIA FOR MEASURING AND REPORTING INVENTORY ACCURACY

Because of the large volume of transactions--such as receipts and issues and other adjustments to inventory records--DOD inventory records are constantly changed and the inventories also experience significant "gains" and "losses". If you have more inventory than you think you have, improper management decisions are made because new stocks are ordered before they are needed. If you have less inventory on hand than your records show, you may not be able to adequately accomplish your mission. In addition, inventories are susceptible to waste or fraud without detection when records do not accurately reflect what is in the warehouse. Therefore, management needs an effective way of identifying inventory accuracy problems, measuring their severity, and determining reasons for the inventory inaccuracies and the corrective actions needed.

REPORTED INVENTORY ACCURACY DATA IS INACCURATE

Reported inventory accuracy data does not reflect actual inventory accuracy for several reasons.

1. DOD policies allow some inaccuracies to not be reported and/or not included in calculating inventory accuracy.
2. The services sometime take actions which just make reported inventory accuracy look better without contributing to improved management.
3. On the other hand, the basis for DOD inventory accuracy reporting tends to make accuracy look worse than it actually is because of a trend for DOD to do more inventories directed at investigating a known problem, rather than the inventories being representative of overall inventory condition.

To get an independent, representative assessment of inventory accuracy, we conducted our own statistically-valid sample inventories and calculated three indexes of accuracy. Because we used a projectable sample we were also able to analyze our sample results by categories such as dollar value or item type.

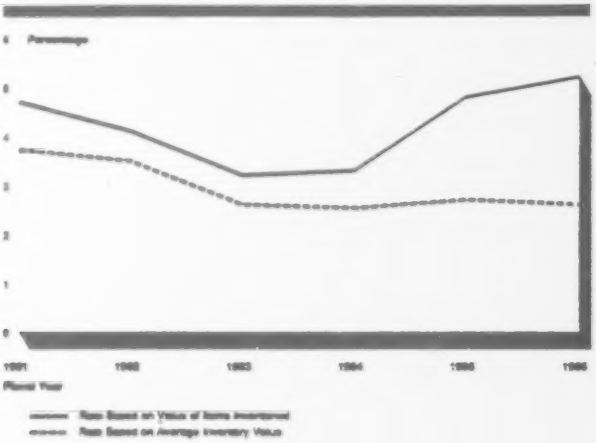
Reported inventory accuracy data

DOD's Inventory Control Effectiveness (ICE) Report is prepared quarterly and annually and contains data on the services' and DLA's inventories, including inventory value and measures of inventory accuracy. One measure, the "gross monetary adjustment rate", shows the relationship of the value of gross inventory adjustments (gains and losses) to both average inventory value and the value of material inventoried. In fiscal year 1986, DOD's overall inventory accuracy was reported as 97.4 percent based on total average

inventory value and 94.8 percent based on the value of items inventoried. (In fiscal year 1986, DOD inventoried 50 percent of its inventory value, down slightly from 57 percent in fiscal year 1985.)

As shown in the following chart, the reported inaccuracy rate based on the value of items inventoried has gotten worse over the last 2 years, going from 3.3 percent in fiscal year 1984 to 5.2 percent in fiscal year 1986.

Comparison of Gross Monetary Adjustment Rate Based on the Average Value of the Inventory With the Rate Based on Value of Items Inventoried



The increasing adjustment rate reflects the growing numbers of unscheduled inventories--inventories done to investigate known problems. While a large number of unscheduled inventories are, by themselves, indicators of inventory problems, such inventories would tend to show lower accuracy rates.

The monetary adjustment rates can be inaccurate indicators of inventory accuracy for several other reasons. In addition to normal updates for receipts and issues, inventory records also experience a lot of changes as the services and DLA adjust them on the basis of physical inventories. In addition, DOD allows adjustments to inventory records to be "reversed" when prior adjustments can be used to explain the variances. Although the dollar value of reversals is reported to DOD, it is excluded in the computation of gross monetary adjustment rates and, therefore, management is not using all available data to identify potential inventory management problems. Including reported reversals in total inventory adjustments lowers the overall DOD monetary accuracy rate from 94.8 to 86.9 percent based on value of items inventoried. Further, as I will discuss later, reversals are often made to make the accuracy rate look better rather than to identify real errors so they can be corrected.

Another measure of inventory accuracy required to be reported in the ICE report is "inventory records accuracy". The accuracy of inventory records--how often a record and a physical count agree--

are reported by the services and DLA to be in the 80 to 95 percent range.

Although records accuracy rates are an important measure of inventory accuracy, they do not by themselves show the extent to which the records are inaccurate. For example, although a record showing 100 units in stock is inaccurate if the actual stock on hand is anything less than 100 units, it is important to know whether the on-hand stock is 1 unit or 99 units. To get this type of evaluative information quantity accuracy has to be measured. DOD does not currently measure quantity accuracy but it is moving in that direction.

In addition, DOD requires that only records with major adjustments (those with a dollar value over $800) be reported and, therefore, considered in computing record accuracy rates. Since record accuracy rates provide a preliminary management indicator on which decisions are being made, we believe all adjustments should be considered as a basis for management action.

For example, in its fiscal year 1986 ICE report, the Air Force reported that 56,510 of the items inventoried had major inventory adjustments and, therefore, that its inventory accuracy rate was 82.5 percent. However, the Air Force also had an additional 137,977 minor adjustments that were not reported. Considering all adjustments reduces the Air Force's record accuracy rate to only 40

percent. While it is appropriate for DOD to concentrate first on the higher-value items, it should also be concerned about the significant amount of inventory adjustments on the lesser-valued items. In the Defense supply system, even a low-value item may be critical to weapon system operations. We think that a positive first step addressing the need to measure and evaluate all inventory variances is that DOD is now changing its regulations to require its components to include both major and minor adjustments in computing record accuracy rates.

This change should be especially helpful to DLA management because DLA is in the business of managing low-value, consumable-items common to all of DOD. For example, during fiscal years 1985 and 1986, 87 percent of DLA depots' inventory adjustments were under the $800 criterion and, therefore, were not considered in computing record accuracy rates. Included in these minor adjustments would be sensitive and pilferable items--such as medical supplies--and a wide range of consumer items--such as clothing, film, and garden hoses.

Reported accuracy data is questionable

In addition to the above concerns on reported inventory accuracy data, we found several service practices that are further inhibiting the reporting of correct inventory accuracy data.

At the Army's Tank Automotive Command, some inventory adjustments are not being reported. Army personnel sometimes conclude that a current inventory adjustment is not a problem, and therefore not reportable, by going back several years in the inventory records to "reverse" prior transactions or adjustments. This is contrary to DOD policy and to good management practice. For example, our review of 15 adjustments each valued at over $20,000 that the Command processed in October 1986 showed that 8 were improperly resolved by reversing old transactions. As an example, an October 1986 physical inventory at the Army's New Cumberland depot revealed a shortage of 11 truck axle assemblies, each costing $11,066. Rather than recording this as an inventory loss of $121,726, the Command ostensibly resolved the loss by partially reversing a June 1980 gain of 25 axles. This action assumed that the 1980 gain transaction and later inventories were erroneous, even though such a gain would not have been posted to the records unless it had been verified by three counts. Such resolutions were not even reported by the Command as "reversals". Rather, they were treated as "accounting errors" and were never considered in assessing inventory accuracy. More importantly, no emphasis was given to determining why the inventory was short 11 axle assemblies.

At the Norfolk Naval Supply Center, in addition to using old transactions to resolve current discrepancies, the Center also overstated the value of items physically inventoried, which made its inventory accuracy look better than it was. Specifically,

Supply Center officials included the results of quarterly routine maintenance checks on a small number of high-value items--F-14 engines--as though they were physical inventories. Since such items are closely controlled, their inventory records are highly accurate. However, by counting these engines four times in a single year in the value of the items inventoried (the denominator of the inventory accuracy statistic), the inventory accuracy rate was artificially increased during the reporting period. For example, in fiscal year 1986, engine maintenance checks accounted for $1.06 billion, or 27 percent of the total value of items inventoried. Not including these in calculating inventory accuracy would have raised the reported adjustment rate from 3.2 percent to 4.4 percent, a significant increase.

Scheduled versus unscheduled inventories

Scheduled inventories are routinely done as an internal control. In addition, unscheduled inventories are done to investigate a suspected or known problem. A growing trend of unscheduled inventories is, in itself, an indication of inventory accuracy problems. For example, at the Army's New Cumberland Depot unscheduled inventories have grown from 60 percent of all inventories in fiscal year 1984 to over 90 percent in fiscal year 1986. At the Norfolk Naval Supply Center they grew from 63 percent to 75 percent during this same period.

GAO STATISTICAL SAMPLES
OF INVENTORY ACCURACY

Because of reporting and accuracy problems and the growing trend for the services and DLA to do more unscheduled inventories directed at examining a problem, the reported inventory accuracy data is not representative of actual conditions. Therefore, to get an independent assessment of inventory accuracy, we physically inventoried statistically sampled items at one major depot or supply center in the Army, Navy, and DLA. Since the Air Force, to their credit, already performs an annual sample inventory at each of its Air Logistics Centers, we did not duplicate its effort. We do, however, have some concerns on its methodology and subsequent reported results. The Navy has also begun implementing a statistical-sample methodology, but it is too soon to evaluate its results. Also, in response to our reports, the Army and DLA will now require an inventory sample to provide management a more representative view of inventory accuracy.

Results of GAO sample

We used the results of our sample to calculate three measures of inventory accuracy: (1) records accuracy--how often the inventory records and a physical count agree, (2) quantity accuracy--the quantity of units counted as a percent of the quantity shown on the record, and (3) dollar value accuracy--the dollar values counted as

a percent of the dollar values shown on the records.[9] No one measure alone is adequate for evaluating inventory accuracy. Rather, they need to be considered together. The following chart shows records, quantity, and dollar accuracy rates for the services and DLA.

INDICATORS OF INVENTORY ACCURACY

	Accuracy As A Percentage Of				
		Recorded Quantity		Dollar Value	
Activity	Records Overall	From	To	From	To
Army Tank and Automotive Command	44	64	99	60	99
Navy Supply Center, Norfolk	69	80	100	72	100
Air Force Logistics Command	68	37	93	76	93
Defense Logistics Agency	63	85	99	82	98

Note: The "records overall" column demonstrates the percentage of times the inventory records showed the number of items on hand that were actually on hand. The ranges shown for quantity and dollar percentages for the Army and Navy were determined by grouping items by dollar value, determining their average accuracy by groups, and arraying them from lowest to highest accuracy. Ranges for DLA were computed and arrayed by commodity types, such as medical or construction items. Ranges for the Air Force were based on what they computed by Air Logistics Center.

We found that inventory record accuracy, that is, how many individual item records agree with a physical count of the assets

[9]Our sample results are projectable to Tank-Automotive Command managed items at the Army's New Cumberland Depot, items stored at the Navy's Norfolk Supply Center most of which were managed by the Ships Parts Control Center, and DLA managed items at DLA's Mechanicsburg Depot.

was between 44 percent and 69 percent. Air Force sample data, when corrected for what we believe are methodological flaws, showed records accuracy results consistent with the range of our sample results. Overall, our records accuracy rate was higher than what DOD's inventories initially find because many of its inventories are unscheduled.

The lower end of our sample range for dollar value accuracy is below the services' and DLA's reported monetary accuracy rates because of the reporting issues and service practices previously discussed, which make the reported rates inaccurate. Only the Air Force currently calculates a quantity-accuracy rate; therefore, there are no other DOD comparisons to our sample results.

Because our samples were stratified by value of items, or by types of commodities for DLA, we identified areas of specific concern that would not be visible in DOD's inventory accuracy reporting. We were surprised by some of our sample results--especially on the lower accuracy rates for controlled items at DLA and for high-dollar value items at the Tank Automotive Command.

In our sample inventory of DLA items, record accuracy rates for controlled items stored in vault and caged areas were about the same as the 63 percent records accuracy rate for all items in our DLA sample. While records were inaccurate for vault-stored items, the monetary and quantity accuracies--of 98.8 percent and 98.6

percent, respectively--were near the 100 percent accuracy one would expect for this type of controlled storage. The caged items, however, had much lower accuracy levels--90.9 percent for dollar value and only 69.5 percent for quantity accuracy. Medical items accounted for 11 of the 14 losses that occurred in vault storage and 17 of 24 losses in caged storage.

Record accuracy variances for our Army-sampled items were fairly well distributed among the various price ranges. However, when we analyzed gross adjustments and inventory values by unit price and looked at their relationship, we found that inventory accuracy was lower for high-dollar value items--over $50,000 unit price. Subsequently, the Army is investigating this situation and initially told us that part of the problem is that some items were incorrectly shown as being at the Army depot where we did our analysis when, in fact, they had been sent to contractors for repair.

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Since no one indicator is the best measure of inventory management effectiveness, several indicators should be evaluated to get a good picture of inventory accuracy. In fact, measuring inventory effectiveness in terms of the relationship of variances to inventory values identifies only the dollar magnitude of inventory management problems. Management must then take effective action to research the cause of the variance and correct the problems that gave rise to the variances in the first place.

CAUSATIVE RESEARCH DOES NOT EFFECTIVELY IDENTIFY AND HELP TO CORRECT RECURRING CAUSES OF INVENTORY ERROR

Causative research within the services and DLA is not effective because it (1) sometimes is done just to make inventory accuracy reports look better, and (2) generally does not identify the causes of inventory variances. Some DOD officials are now questioning whether such research should be done at all, especially in light of continuous reports by us and others that much of the research that is performed is ineffective.

While eliminating causative research may be an outcome of such questioning, there is currently no substitute for it as a tool to improving inventory management. What is needed is for DOD to direct its research efforts at identifying the causes of inventory problems. Currently, some of the research done is directed at eliminating a physical inventory variance that would have to be reported, rather than at determining the cause of the inventory discrepancy in the first place. We identified numerous instances of this during our field work.

For example, during fiscal year 1986, the Army's New Cumberland Depot reported that it resolved inventory variances for 82 of the 114 causative research requests that the Tank Automotive Command asked it to do. However, the depot considers resolved to mean that it was able to reconcile the inventory variance, not to identify the cause for the variance. Actually, the depot identified causes

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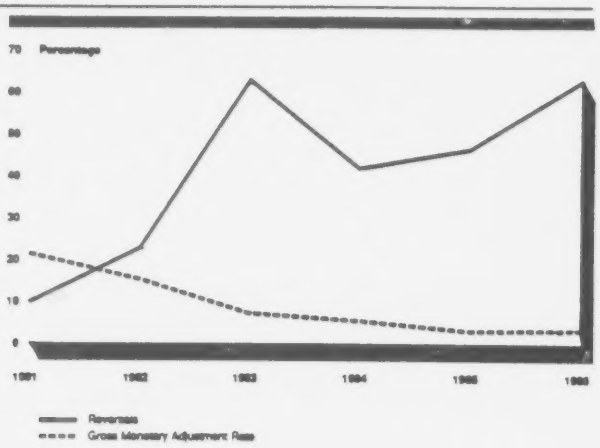
for only 16 of the 114, or about 14 percent of the inventory variances examined. The causes for the remaining 98 variances were not determined.

An example of what the depot considers a "resolved" variance illustrates the ineffectiveness of its causative research. On January 29, 1986, the depot reported that research showed that the loss of two TOW missile vehicle support assemblies (valued at $15,730) was due to an erroneous gain of four assemblies on April 15, 1985. However, in previously explaining the April 15, 1985, transaction, the depot said that the gain was partially due to an erroneous loss of three assemblies on August 18, 1984. In both cases, the research process was terminated without further investigation to determine the reasons for the gain or loss. The inventory turbulence for this item will likely continue unless the cause can be determined.

At the Norfolk Naval Supply Center, we found that research often merely resulted in an adjustment or reversal. It is interesting to compare the Supply Center's reported inventory accuracy rate with the growing trend of reversals since 1981 when the Congress severely criticized the Supply Center for its accuracy problems. As shown in the following chart, in 1981 the Supply Center reported a gross inventory adjustment rate of 21.3 percent and a reversal rate of 9.7 percent. In 1986, the Supply Center reported its gross inventory adjustment rate at 3.2 percent--just over the Navy's 3.0

percent goal. However, at the same time reversals, which improve the reported inventory accuracy rates, had increased from 9.7 to 62.5 percent. Although not conclusive, this pattern suggests that a primary purpose of causative research and reversals is to make inventory accuracy look better.

Comparison of Changes of Reversals and Gross Adjustment Rates FY 1981 to FY 1986



Our concern over the routine use of reversals is demonstrated by what happened at the Supply Center on a trainer aircraft radar set valued at over $1.2 million. A physical inventory in July 1985 found the Supply Center one radar set short. After causative research failed to determine why the Center was short, the

researcher concluded that the radar set was probably never received and that a receipt for one set delivered 5 years earlier should be reversed. This is not adequate accountability for an item valued at over $1 million.

In another case, different items with gains and losses were treated as though they were identical, thereby offsetting the gains with the losses and resolving the variances. In the January 1986 physical inventory, a loss of one compressor worth $244,920 was recorded and an adjustment posted to the records. Later, the Supply Center offset this loss with a gain of another unrelated compressor worth $104,360 and reversed the earlier adjustment. Technical experts with the Navy state that these two line items are not interchangeable. In this example, the Navy created two problems by trying to solve one.

Paralleling good causative research should be the ability to identify and analyze trends. For example, overall inventory accuracy data DLA reported to DOD showed a $23.5 million net gain during fiscal year 1986. However, our analysis showed that this net gain included DLA items stored at other service facilities. When we analyzed only the DLA-managed items stored at its own depots, we found that it was experiencing a net loss. For two types of items highly susceptible to theft or diversion--medical and clothing and textile items--DLA had a trend of losses totalling $30 million during fiscal years 1985 and 1986.

At DLA, because it is in the business of managing low-value, consumable items, we are concerned because 87 percent of its inventory variances are under $800 and, therefore, usually not researched. DLA should evaluate whether it should be researching more of these variances to (1) provide a cop-on-the-beat atmosphere and (2) provide management more information on the causes of all inventory variances.

Starting in June 1986, the Air Force began implementing a new causative research policy that DOD had not yet approved. DOD policy is that research must be done on a sample of item variances between $800 and $16,000 and on all variances for controlled items or those over $16,000. Under the Air Force's new policy, potential variances of less than 10 percent in quantity or less than $5,000 in value will not be adjusted or researched, and only monetary variances greater than $16,000 will require complete causative research. The Air Force adopted this policy to, in its opinion, lessen the amount of records' adjustments that it considered unnecessary and to reduce the amount of research.

While it is too soon to evaluate this new policy, we believe that when a physical count shows that the number of items on hand differs from what the records show, the records should be changed. Otherwise, procurement or other decisions may be made on erroneous information.

Concerning the Air Force's new policy on causative research, the revised criteria seem high, considering that a significant amount of inventory discrepancies are under the $800 criteria. However, we can understand what may have driven the Air Force to its change --a declining efficiency of causative research. For example, for fiscal years 1984 through 1986, the San Antonio Air Logistics Center's ability to identify the causes of variances had steadily declined. Research findings were reported to be inconclusive 45 percent of the time in 1984; 61 percent in 1985; and 76 percent in 1986. In fiscal year 1986, San Antonio's experience was generally in line with the other Air Logistics Centers.

IMPORTANCE OF GOOD PHYSICAL SECURITY

Good physical security is a prerequisite of good inventory management. When accountability over inventories is a problem, good physical security is necessary to prevent theft and diversion occurring without detection. For example, in 1986 the Air Force Inspector General reported on Air Force supply system vulnerability and concluded that Air Force physical security practices at both wholesale and retail maintenance and supply activities provided numerous opportunities for theft.[10] The Inspector General also found that weaknesses in inventory procedures and adjustment practices could have resulted in inaccurate records at wholesale

[10] Special Inspection of Supply System Vulnerability. Office of Air Force Inspector General, Feb. 26, 1986. (Details of this report are not releasable without permission of the Secretary of the Air Force).

and retail activities and, therefore, could have resulted in theft or diversion of property. We testified last year that we made undetected entries into Army and Air Force supply warehouses in Europe and could easily have removed items, including spare parts for F-15 and F-16 aircraft.

While the thrust of our current work was directed at inventory accuracy rather than security, we did review security at some locations and found problems. For example:

-- In the Army, we found numerous instances where physical security was inadequate. The physical deficiencies we noted applied not only to repair parts, but also to sensitive missiles that could be targets for theft by terrorists. The range of security deficiencies included inadequate and improper storage facilities, inoperative detection devices, poorly equipped and poorly trained guards, and poor accountability for and control over sensitive items.

-- In the Navy, we reviewed security, starting at base perimeters and working towards storage and maintenance facilities. We found problems in several areas: (1) protection of restricted areas, (2) control of commercial vehicles, (3) provision for waterfront security, (4) compliance with fencing requirements, and (5) control over private boats and airplanes on Navy bases.

-- At DLA, we observed inadequate storage and protection over pilferable items and noted that other security concerns were identified in security reviews but did not result in adequate management attention.

In all of the above cases, the services and DLA are already taking corrective actions in response to our findings.

INTERNAL CONTROLS AND ACCOUNTING SYSTEMS

What is obvious from what I have discussed so far is the absence of, or a breakdown in, inventory management internal controls. What is less obvious is the role financial controls should play in good inventory management.

Congress has long recognized the importance of having adequate internal controls and accounting systems. In response to continuing disclosures of fraud, waste, and abuse across a wide spectrum of government operations, the Congress passed the Federal Managers Financial Integrity Act of 1982. The Act requires federal managers to identify internal control and accounting system weaknesses that can lead to fraud, waste, and abuse in government operations. The Act also requires federal managers to correct the weaknesses and to report annually to the President and the Congress on their progress to improve controls and accounting systems.

In his December 30, 1986, report, the Secretary of Defense said that due to the scope of reported weaknesses and the magnitude of

individual problems, the inventory control and security aspect of supply operations was a DOD-wide material weakness.

While DOD is concentrating first on improving its property and physical controls over inventories, it should also be implementing good internal financial controls and accounting systems to assist management.

The need for better controls and reporting was clearly shown when the Navy lost accountability over reparable items that are with commercial contractors and other services for repair. Navy supply centers notify the Navy's Ships Parts Control Center (SPCC)--an inventory control point--when they send an item out for repair, and the contractor or service repair facility is supposed to notify SPCC of receipt of the item.

We found that subsequent to a Navy audit of the Aviation Supply Office--the Navy's other inventory control point--in 1984, SPCC reviewed its controls over reparable assets at contractors and service repair facilities. SPCC realized that it had lost visibility over these items and, in 1985, wrote a letter to contractors, explaining

> "...We have a problem in that our computer files have no visibility of our repairable components in your [the contractor's] facility: Due to this lack of information, we have great difficulty in

making accurate supply decisions as to when and how much to buy or repair".

SPCC told the contractors that it needed their help to identify the dollar amount of reparable items that they were working on for the Navy.

Responses from the contractors and the Navy's own internal reconciliation efforts showed that the Navy's records for these items were either overstated or understated in total by over $621 million, with a net loss of $464 million. In 1985 and 1986, the SPCC wrote this $464 million off its financial records, without attempting to research the validity of the contractor-reported data. However, the Navy did implement what it considered a solution--the Commercial Asset Visibility Program.

Our current work in the Navy has shown that recently the SPCC again lost visibility over more than $200 million in reparable items at the contractors previously queried, and intends to send another inquiry to the contractors. This situation obviously requires immediate management attention.

This example is also indicative of the larger issue of improving financial controls and establishing accurate financial statements at the agency level. As stated in our report Managing the Cost of Government,[11] strengthened accounting and reporting are key

[11]Managing the Cost of Government, GAO/AFMD-85-35, Feb. 1985.

elements in improving the shortcomings in present financial management systems. However, we stated that effective financial management must start with complete, reliable, consistent, and timely information; and that government financial systems must be designed to produce reports which are timely, useful, and readily understandable.

DOD WORKING ON IMPROVING ITS POLICY FOR MEASURING INVENTORY EFFECTIVENESS AND MONITORING PERFORMANCE

In 1982, the Defense Council on Integrity and Management Improvement designated physical inventory control as an issue that required immediate management attention and corrective action. The Council established a plan of action for improving physical inventory controls. Under this plan, the Joint Physical Inventory Working Group developed a physical inventory control improvement program plan in June 1982, which called for a series of actions from fiscal years 1982 to 1985 to identify and implement improvements for upgrading physical inventory performance and inventory records accuracy. The plan was revised in January, 1986 and proposed actions through fiscal year 1990. One of the specific provisions of the plan was to validate existing performance standards and to develop new or revised standards. Also, the Air Force and the Navy, dissatisfied with the current inventory accuracy indicators, have developed methodologies to statistically sample and analyze inventory accuracy. The Navy, at one of its smaller supply centers, has complemented its sample with a host of improved security measures. Navy management acknowledges that the

success of these actions at the one supply center only demonstrates where the Navy is headed in improving inventory management, and that overall, it still has a way to go to effect systemic improvements.

DOD has continually taken some actions to improve inventory management throughout the supply system, but more needs to be done. We pointed out significant management problems in our 1986 report and congressional testimony. At the July 1986 Task Force hearings, DOD said that it was aware of the problems we reported on and that solutions to these problems remain among the highest management priorities within DOD. Subsequently, for the first time, DOD identified supply system problems as a material DOD-wide weakness in its fiscal year 1986 Federal Managers Financial Integrity Act report. DOD has major projects underway to correct control and system weaknesses. Although these projects are planned for completion by the early 1990s, we anticipate some slippage in the estimated completion dates.

FURTHER ACTIONS NEEDED

DOD is supposed to evaluate how the services and DLA manage inventories in their custody. Yet, DOD does not have accurate data on which to do this. Therefore, if DOD is to tackle the problem of inventory accuracy, we believe that it has to go beyond what it has been doing or trying to do for several years--refining

current policies and procedures and attempting to monitor compliance.

DOD needs to place emphasis on identifying the systemic causes of inventory accuracy problems. However, because of the causative research problems I have mentioned, DOD does not have the data it needs to assess where the basic problems are. We believe that there is too much emphasis on making adjustments which are then researched primarily to determine whether the adjustments can be reversed--the goal apparently being to report higher inventory accuracy rates. The new Air Force policy of not making adjustments if the quantity discrepancy is less than 10 percent and $5,000 recognizes, in part, the problems of adjustments and subsequent reversals. However, we are concerned that the Air Force is not, at a minimum, correcting its records to reflect what inventories are actually on hand. Item managers need such information to make day-to-day supply management decisions.

We will be recommending that the Secretary of Defense improve inventory management and inventory accuracy reporting by

1. Requiring adjustments to inventory records as soon as they are identified by physical inventories or other methods.
2. Developing a comprehensive policy on inventory management and measuring inventory accuracy which addresses such areas as (1) the adequacy of the Inventory Control Effectiveness report

for management oversight, and (2) eliminating the practice of reversing prior inventory adjustments.

3. Re-emphasizing the need for effective causative research that identifies inventory variances and analyzes them to identify systemic problems. Variances currently under the monetary criteria for causative research should be sampled as further input to identifying systemic problems.

Further systemic and lasting improvements are possible within the framework of financial management and accounting controls--areas that we have to strive to improve throughout the federal government.

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Mr. Chairman, that concludes my prepared statement. We will be happy to respond to questions.

STATEMENT OF WILLIAM H. TAFT IV

Mr. Chairman and members of the Committee, it is indeed a pleasure for me to appear before you today to discuss the Department's program and initiatives to further improve the accountability and security of the DoD inventory system. As you know, our primary mission is to maintain a force ready to conduct operations anywhere in the world on a moment's notice and to sustain those forces to the successful conclusion of a conflict. Logistics support is a key to maintaining the required levels of readiness and sustainability. Accurate record keeping and protection of the Department's inventories of materiel are critical prerequisites to the development and execution of sound requirements and procurement programs and the effective supply support of our operating forces. Inaccurate records can result in critical supply shortages, prolonged delays in satisfying customer requirements, unnecessary expenditures, maldistribution of stocks, and accumulation of excess stocks; all of which adversely affect the readiness and sustainability of our forces.

The basis for today's hearing is the series of audits which the General Accounting Office has been conducting on the accuracy and security of DoD inventories. Although we have seen only drafts of two of the reports and had very little time to review them, we have worked closely with the GAO during these audits.

Before I begin, I want to make the point that this subject has claimed and will continue to claim high level DoD management attention. Very early in this Administration we recognized that inventory control improvements were needed and we developed a program to address this need. These draft GAO reports, as well as previous GAO reports, insinuate that while the problems are well known, very little action has been taken to correct them. This is simply not the case. Every audit report, whether from the DoD IG audit or the GAO, is carefully reviewed. Every recommendation is considered and adopted or rejected based on sound reasoning. None is ignored.

We are always trying, of course, to improve the DoD logistics system. During the last year alone the Department implemented forty-three formal changes to the DoD Logistics Standard Systems and we currently have eighty-two additional changes in process. This is the normal course of business. We are continually seeking and implementing improved ways to conduct our logistics business. Achieving and maintaining a high degree of inventory accuracy and security in a logistics system as large and complex as ours is both difficult and challenging. We have made considerable progress and have committed significant resources toward improving our management of these areas. Some problems remain.

Today I would like to describe the challenge we face, the inventory control program we have in place, and the improvements we have made. I particularly want to share with you a number of the actions in process and planned to bring about the better system the Department and your Committee are seeking. In addition, per your request, I also will discuss inventory growth, why it has occurred, and what we're doing about it.

First let me say that the DoD supply system is large and complex. Nothing in the private sector compares to its size, geographic dispersal, or volume of business.

There are more than four and a half million different items in the DoD supply system. Our inventories are valued at approximately $90 billion. Items are stored at thousands of locations world-wide. More than $40 billion of materiel is issued to DoD customers annually. Materiel moves from point to point by every mode of transportation to provide support to our forces seven days a week, 365 days a year. Any individual item may have quantities stored at multiple physical sites in multiple conditions of serviceability, ranging from new and ready to issue, to beyond repair and awaiting disposal. The quantity of a specific item, and its condition, must be recorded accurately to ensure that requirements for purchase and repair are properly computed, and to respond to the hundreds of

thousands of DoD customers with the right items, when and where needed.

In order to perform this function, hundreds of millions of individual transactions are processed annually, which affect the status and accuracy of both physical location and inventory records. For example, in the wholesale system alone we process more than 30 million customer demand transactions annually. A typical large wholesale distribution center has about one million individual storage locations on which accurate records must be kept. As you can see, maintaining accurate physical inventories and computer record balances in a system this size is a significant management challenge.

To accomplish this task we have instituted the DoD Inventory Control Program, which is mandated by Department of Defense Instruction 4140.35, "Physical Inventory Control for DoD Supply System Materiel." We recognize that it is neither possible nor cost effective to count everything in our inventory. It has been suggested that DoD adopt the wall-to-wall inventory practice used in the private sector. This was last suggested in 1983 by the President's Private Sector Survey On Cost Control. We conducted a nine-month test in which all the Military Services and the Defense Logistics Agency participated. The conclusion was that the wall-to-wall approach did not improve inventory accuracy, was inefficient and

had detrimental effects on readiness. While this concept frequently works well in the private sector, it is inappropriate for DoD. Private businesses draw down on-hand quantities so there is less to count and close their doors while conducting Wall-To-Wall inventories. We can do neither, our system never stops.

Therefore, our inventory control program is designed to be selective. We concentrate our effort on known problem items and those which are most important. The emphasis is to be effective but not penny-wise and pound-foolish.

Our inventory control program is composed of five program elements; (1) location audits, (2) physical inventories, (3) research, (4) quality control and (5) performance measurement. The program objectives are: (1) to insure that each item's accountable record, custodial record and physical on-hand quantity are in complete agreement; (2) to identify variances and correct them; and (3) to identify the causes of the variances and take management action to prevent recurrence.

- LOCATION AUDITS - The location audit portion of the inventory control program is one of the most cost effective facets of the program. No materiel is physically counted, but the process rapidly identifies problem areas that require correction and areas where physical inventories (counts) may be needed. There are

two parts to the location audit program element, location surveys and records reconciliation.

oo Location Surveys - A location survey is the process of comparing the storage activity's custodial records to all the physical locations where materiel can be stored. The DoD program requires that this be done at least once each year. It amounts to the physical inspection of every storage location to ensure that the right materiel is in the right location. The location survey identifies locations that have materiel when they should be empty or are empty when they should have materiel, materiel that's in the wrong location and mismatches of key data, such as unit of issue, condition code, physical security code, shelf-life code, lot or serial number, etc. When any of these error conditions is identified, corrective action is initiated, which may include a physical count. The DoD accuracy goal for location surveys is 97 percent, that is, 97 percent or more of the materiel is physically located where the records say it is at the time of survey.

oo Records Reconciliation - Records reconciliation is the process of matching the supply depot's

custodial records to the Inventory Control Point's accountable records and identifying mismatches. This process rapidly identifies problems and may result in a physical inventory. DoD requires that this process be completed annually within a Military Service/Agency and semi-annually across Services/Agencies. The DoD accuracy goal for this process is also 97 percent, that is 97 percent or more of the records match.

- PHYSICAL INVENTORIES -- Physical inventories require counting the materiel in the storage location and comparing that count to the quantity recorded in the accountable record. Since our system never stops, strict controls must be placed on what we call in-float documentation. At the point that the decision is made to take an inventory of an item, a control date is established so that all receipts, issues and other transactions affecting the physical materiel quantity and the accountable record quantity are dated. This is done to identify whether these transactions occurred before or after the physical count was made, so that they are properly considered. Our program includes two basic types of physical inventories, unscheduled and scheduled.

-- Unscheduled Inventories, as the name implies, are inventories which are not planned in advance. They are prompted by the location audit program element discussed above, by materiel denials, or by other circumstances that indicate a problem may exist. Our inventory control program is geared toward correction of known problems. Unscheduled inventories are the vehicle we use to correct those problems. Unscheduled inventories are a top priority and they account for about two-thirds of all the inventories conducted in the wholesale system.

-- Scheduled inventories are planned. There are three categories of scheduled inventories. The first is the inventories mandated by policy. Our program requires that certain items, those we call controlled items, must be physically inventoried at least once annually. A controlled item is an item that we have identified as needing special attention, due to its sensitivity, its pilferable nature, or a similar reason. The second category of scheduled items are those generated by our item sampling and prioritization models. Here again, the objective is to be selective, so that we can focus inventory personnel resources on our most important items or on identified problem areas. The third category of scheduled inventory is

the random statistical sample inventory. This is a new requirement in the DoD program, but some of the Services were previously using it. The purpose of this inventory is to generate management information to measure progress toward improving inventory control processes.

-- It is important to put the term "inventory adjustment" in perspective. Accountable record gains and losses are just that, adjustments to our records required to restore agreement between the actual inventory and the accountable record. When the physical count is greater than the quantity in the accountable record, we have an accountable record gain; an accountable record loss is when the record balance exceeds the physical count. Accountable record gains and losses usually reflect inventory handling and/or record keeping transaction problems, rarely do they reflect an actual physical gain or loss of materiel. This true meaning of an accountable record adjustment is important since it has been frequently misinterpreted. Just last year the press misquoted the former Deputy Assistant Secretary Of Defense for Logistics, stating that he had said that $900 million worth of materiel had disappeared from the supply system in 1986. That's not what he said. He was

talking about accountable record losses, not physical losses. Accountable record adjustments, gains or losses, are important. They reflect a temporary loss of accountability and may, temporarily, prevent us from supporting a customer or from accurately calculating a procurement requirement.

- RESEARCH -- The research element of the DoD inventory control program is the process of analyzing variances that are uncovered by the physical inventory program element. Our research seeks to prevent erroneous adjustments and to identify the systemic causes for actual variances in order to prevent their recurrence. Over ninety percent of the total gross dollar value of inventory adjustments are researched. The program specifies three types of research: post-count validation; preadjustment research; and causative research. Post-count validation verifies the count to determine if a variance actually exits. Preadjustment research is conducted to determine the correct balance prior to making an adjustment to the accountable record. Our new policies and procedures will require both post count validation and preadjustment research are performed on all variances exceeding $100. Causative research is conducted after the accountable record has been adjusted. The purpose of this research

is to identify the root cause of the adjustment. It requires exhaustive research of all transactions posted to the accountable records and validation of applicable source documents which support the posted transaction. It also requires that the results of the research be documented and acted upon. In keeping with our philosophy of a selective program, the amount of time and depth of research efforts varies depending on the significance of the variance.

- QUALITY CONTROL -- The quality control portion of the program assists management in identifying those human, procedural, or system errors that adversely affect the asset balance accuracy, and in achieving better control over physical assets and warehousing practices. It requires monitoring work processes directly related to the control of physical assets to assure acceptable levels of performance. Where possible, quality control checks include identification of individuals performing the tasks. The success of the program depends heavily on Command emphasis at all levels. The quality control program complements the requirement to include materiel accountability and inventory accuracy elements in performance evaluations of individuals directly responsible for the care, safekeeping, managing and reporting of DoD supply

system materiel. These should improve program execution.

- o PERFORMANCE MEASUREMENT -- This program element provides management with a measurement reporting system to identify the current level of performance as well as performance trends. The Inventory Control Effectiveness (ICE) reporting system provides statistics and accuracy rates on materiel denials, receipt processing, location audits, and inventory accuracy both in terms of line items and dollars.

This cursory description of the DoD inventory control program demonstrates that it is comprehensive and well thought out. However, programs, policies and procedures are one thing; where we have difficulties, they are found in execution and performance.

We have many resources that advise us about the condition of our inventory management system. Each is a useful measure, but none tells the entire story. It's a little bit like asking an economist to describe the current state of the U.S. economy. The economist would probably answer with a discussion of the wholesale and retail price indexes, the gross national product, the inflation rate and the unemployment rate, as well as other measures. He would be telling you that there is no simple answer to the question, that there are a number of competing

goals to be satisfied and variables to consider. No single measure, by itself, adequately describes the current state of the DoD inventory control program.

Since force readiness and sustainability are two of our primary objectives, we must examine how well the logistics system supports its customers. We measure supply system performance using a number of measures, but the one that describes the direct effect of inventory inaccuracies on the customer is the Material Denial Rate. This measure reflects the total number of customer requests for materiel that could not be satisfied because the stock record at the ICP and the stock record at the depot or physical balance were not in agreement. The DoD performance goal is denial of less than one percent of all customer demands. For the last eight years, the DoD denial rate has been consistently less than one percent. That impressive record indicates that inventory accuracy problems are having little impact on force readiness. Customers <u>are</u> getting the materiel they need.

Another important measure of the current inventory accuracy is the location survey accuracy rate. As I discussed earlier, this is the visual inspection of every storage location in every warehouse at least once each year. Our policy is a location survey accuracy rate goal of 97 percent or better. During the last eight years, the location survey accuracy rate has ranged

from a low of 96.5 percent in Fiscal Year 1982 to the current high of 97.7 percent for Fiscal Year 1986. This is an extremely important process and measure since it allows us to rapidly identify potential problem areas and ensures that we can physically find the materiel.

Another measure of effectiveness of the inventory control program is the location reconciliation rate, which is the process of matching the custodial records at the depot to the accountable records at the inventory control point. This process identifies accountable records with no corresponding custodial record and vice versa, and it identifies mismatches of the same data elements included in the location survey with one important addition, the quantity in the records. Corrective actions are initiated for any discrepancies uncovered during the location reconciliation and a physical inventory may be required. Our location reconciliation accuracy rate goal is 97 percent or better, that is, 97 percent or more of the records reconciled will be in full agreement. During the last eight years, the location reconciliation accuracy rate has ranged from a low of 96.2 percent to a high of 97.5 percent. This measure is particularly important because agreement between accountable and custodial records means fewer materiel denials.

Physical inventories conducted due to any of the above conditions are called unscheduled inventories, that is they were

not planned, they are conducted to clear up problems uncovered by denials, or the location audit program. Scheduled inventories are those that are planned in advance. Our policy currently identifies two types of scheduled inventories, the mandatory inventory of all controlled items and the selective inventories of all other items.

Controlled items are those that have been assigned a Controlled Inventory Item Code. Semi-annual inventories are conducted on all sensitive munitions with a Category I Sensitive Item Code, which include non-nuclear missiles and rockets in a ready-to-fire configuration such as the REDEYE, STINGER, LAW, DRAGON, etc. All other controlled items are scheduled for annual physical inventory.

DoD policy dictates that all other items not subjected to an unscheduled inventory or the mandatory inventory required of controlled items, will be candidates for inventory based on DoD Component inventory scheduling and prioritization models. The selection and prioritization models identify items for physical inventory based on characteristics such as weapons systems significance, item dollar value, frequency of demand, etc.

The revised DoD policy of June 30, 1987, also requires an annual random sample inventory. The purpose of this inventory is to establis the initial inventory record accuracy rate; the rate GAO has derived during its research. All items have an

equal probability of being selected in the sample. The inventory record accuracy rate is determined by comparing the physical quantity in the storage location to the accountable record at the ICP. Discrepancies are considered errors regardless of whether they are gains or losses or the magnitude of the variance. This inventory only measures what proportion of the items in the sample were 100% accurate. This measure provides a statistically valid and stable baseline against which we can measure improvements to the inventory control process over time. Our concern is as much with the trend over time as with the initial baseline.

We also measure inventory accuracy in dollar amounts. Among these measures are: the average dollar value of the on hand inventory, dollar value of the materiel subjected to physical inventory, dollar value of inventory gain adjustments, value of inventory loss adjustments and gross dollar value adjustments (the sum of the gain and loss adjustments). Since 1979 the average value of the on-hand inventory has doubled. During this same period of time the total dollar value of inventory adjustments has remained relatively constant, at about $2 billion, split about evenly between gains and losses. Again it is important to remember that these are accounting gains and losses, rarely do they represent physical losses or gains.

We use a number of measures to gauge our inventory control program performance since no single measure can do the job. Unfortunately the measure on which GAO concentrates, records accuracy, is the least descriptive and the one most subject to misinterpretation. Great care is therefore required in its use. Earlier this year we saw it misused to indicate that the Air Force didn't know where to locate one-third of its materiel. It can be a useful measure when used properly for its intended purpose.

Before I leave the subject of performance measurement, I want to discuss some of the data, performance measures and resulting conclusions in the two draft GAO audit reports we have reviewed on the Army and Defense Logistics Agency. As I have previously stated, statistics must be used and viewed carefully if erroneous conclusions and misrepresentations are to be avoided. The Executive Summary of the draft GAO report on the Army, states that the GAO took a statistical sample of their own because the Army's effectiveness measures do not provide a representative view of how well the inventory is being managed. It also states that GAO's statistical sample of 330 items showed that the inventory records for about 56 percent of the items were inaccurate and that dollar variances were as high as almost 40 percent and unit variances were as high as 36 percent. These statistics clearly present a picture of a system that appears to lack basic controls and good management practices.

Unfortunately there are some things the report doesn't say. First, the 330 sample items are not included in the GAO report; however, the GAO has made them available to us.

The following are some of the things the report doesn't say and which are not visible without access to the sample. It is true that of the 330 sample items, 182 were in error; however nearly half of the error records resulted in dollar variances (both gains and losses) of less than $100. In fact of the 182 error records, 139 or 76.4 percent resulted in dollar variances (gains and losses) of under $800. The 139 error records with variances of under $800 had a combined gross dollar value variance of $23,050, that is 76.4 percent of the error records accounted for two-tenths of one percent of the total $10.5 million gross dollar variance of the sample.

Looking further at the dollar variances we find that three of the 330 sample records accounted for 84 percent of that $10.5 million total sample dollar variance. The Army performed research on each item and determined that in each case clerical transaction errors were the cause of the variance, corrective transactions were posted and accountability was regained. The problem was one of record keeping not theft, fraud, waste or abuse.

The GAO draft report on the Army also talks in terms of unit, e.g. quantity variances but it doesn't say that one item

with a unit value of 14 cents accounted for 50 percent of the total unit loss variance, nor does it say that 3 of the items in error, valued respectively at 14, 23 and 35 cents, accounted for 52 percent of the total gross (gain and loss) unit variances. The sample also shows that 74.2 of the records in the sample had unit variances of less than 5 percent. I could go on but I think the point is made that the same data can paint differing pictures and be used for differing purposes. Our analysis of the draft GAO report and sample inventory on DLA lead us to the same bottom line conclusions the the Army sample data demonstrates. Those conclusions are: (1) the basic problem is one of record keeping, not theft, fraud, waste and abuse; (2) less than one percent of the GAO sample records drove the dollar and unit variance results; (3) while the number of records with errors was relatively high, the degree of error in the preponderance of the records was very low; (4) DoD philosophy to concentrate on known errors and the significant is a sound policy.

The key question is what constitutes good inventory management control. Obviously no one realistically expects perfection, but when is the inventory "right"? A May 1986 article in Accounting Management, written by a professional engineer and inventory specialist, offers a possible answer:

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The value of on-hand units for a given item in a superbly controlled perpetual inventory is "right" when the record quantity is within 5% of physical on-hand quantity, 90% of the time. In a typical company, the perpetual on-hand quantity of a given item has perhaps a 60% chance of being "right".

When we look at the results of the GAO sample inventories of the Army and DLA we see that 74.2% and 78.2 percent of their respective records had unit variances within 5%, not superb, but far better than the "typical company" could expect.

While we believe we have a sound management program in place we also recognize that there are problems and improvements to be made. Our analysis leads us to conclude that our basic problem is one of record keeping rather than fraud, waste and abuse. The DoD Supply System is people dependent, every item of supply which is received, stored and issued requires that many individuals perform correctly and honestly. This being the case, our actions concentrate on improving the policies, procedures, systems and training upon which our people depend. First, I will address the actions we have already taken.

Problems in our physical inventory systems were recognized early in this Administration. Based on internal studies, audits and independent reviews by the GAO, we concluded there was a lack of high-level management attention and involvement.

Therefore, in 1982, the subject of inventory record accuracy was included as a high interest item of the Defense Council on Integrity and Management Improvement (DCIMI). I chair the DCIMI and the Under Secretaries of the Military Services are members. On June 10, 1982, the DCIMI approved an action plan to improve this critical area of logistics support. To maintain this high level management involvement the control and security of inventories was identified as a DoD-Wide weakness in Secretary Weinberger's Annual Statement of Assurance for Fiscal Year 1986. This high-level emphasis on inventory control and accuracy has resulted in the following:

o The reissuance of DoD Instruction 4140.35, which prescribes the Department's inventory control policies. The following are major improvements institutionalized by the new instruction. Many of these improvements are already in operation.

POLICY ENHANCEMENTS

- Expands DoD physical inventory control policy to cover all supply system inventories and provides the foundation for issuance of procedures for below the wholesale level in DoD 4140.22-M.

- Policy statement stresses applying inventory control resources toward achieving force readiness and integrity of accountable records.

RESPONSIBILITY ENHANCEMENTS

- Requires the DoD Inspector General to conduct periodic evaluations of the entire inventory control program and provide findings to the DoD Components.

- Requires that the Heads of DoD Components provide adequate management priority and resources for the execution of physical inventory control functions.

- Requires materiel accountability and inventory accuracy as mandatory elements in military and civilian personnel performance for individuals directly responsible for inventory control functions.

- Makes physical inventory control a mandatory element of the annual Internal Management Control assessments.

- Requires Heads of DoD Components ensure to that adequate updated and current training is provided to supply personnel.

- Establishes the inventory control responsibilities of the Defense Logistics Standard Systems Office, the DoD Physical Inventory Control Program Administrator and the DoD Joint Physical Inventory Working Group (JPIWG).

PROCEDURES ENHANCEMENTS

- Lays groundwork for inventory procedures below the wholesale level.

- Establishes a new requirement for the conduct of an annual random statistical sample inventory.

- Requires a physical inventory selection and prioritization system.

- Requires inter-Service location reconciliations on an annual basis in accordance with a schedule specified by the revision to DoD 4140.22-M.

- Clarifies that the Quality Control Program will assist management in identifying human, procedural, or system errors that adversely effect asset accuracy and ties this process to the Internal Management Control Program.

- Requires research in accordance with DoD Instruction 7200.10-M on inventory variances which involve known or suspected negligence, abuse, or theft.

- Requires that unresolved physical inventory adjustments (gains or losses) for controlled items be referred to security officials to determine culpability.

- Clarifies the DoD goal for denials of not greater than 1 percent of the total materiel release orders (MROs) processed.

- Establishes inventory accuracy performance measures and goals for ammunition items.

Joint Physical Inventory Working Group (JPIWG) CHARTER

- Expands JPIWG responsibility to include all supply system materiel.

- Requires JPIWG to conduct analyses of Inventory Control Effectiveness (ICE) data and provide appropriate recommendations to ASD(P&L).

- Establishes Service and Agency JPIWG member responsibilities.

o In addition to this new policy statement we have;

- Invested $58 million and provided 1,547 new personnel spaces at Naval Supply Centers, which helped reduce Navy inventory gross adjustment rates from 14% in 1981 to 2.9% in 1986.

- The Services have initiated major programs to emphasize the need for improved inventory control and supply security.

- Management information feedback systems have been established to report causes of error conditions to higher levels of management and to serve as the basis for correcting systemic problems.

- The importance of inventory accuracy has been elevated to the highest levels of logistics management within the Services and for commanders.

- Training needs of depot and inventory control point supply personnel have been identified and training courses have been developed to provide the required training.

- The DoD Joint Physical Inventory Working Group has developed and institutionalized the Five-Year DoD Physical Inventory Control Program. The program's action plan focuses on the major problem areas and establishes milestones for their resolution over the next five year period. The plan is a living document and is updated annually, deleting completed actions and adding new ones for action. The plan was just reissued earlier this month.

Physical Security of Inventories

Over the past ten years, considerable resources have been expended for the installation of barriers, protective lighting,

intrusion detection systems and other enhancements to develop a "balanced" security system including procedural controls, security forces and security technology. Our programs are asset-related with the priority for resources going to mission essential or critical materiel and hazardous items. Our major orientation has been to deter external adversaries including criminals, terrorists and hostile intelligence, but we have also made progress in deterring internal theft.

For example, during a recent visit by OSD staff members to a small arms production and storage facility, we found an activity containing thousands of weapons with a security system including intrusion detection devices, barriers, and metal detectors at entry point. It would be difficult at best for an insider to abscond with even a part of a weapon. Even if he was able to carry out the theft, there is a high probability that the inventory process would discover the theft and that the offender would be identified. I use this example to illustrate a security system which is relatively tight.

We have reviewed the physical security recommendations appearing in the Task Force Report on Military Inventory Management. All of the security measures described are standard practices in use by the Military Department and Defense Agencies. We may need to place more emphasis on some of these, and in that regard, the Chairman of the DoD Physical Security

Review Board has requested that the Joint Security Chiefs of the Military Departments and the Defense Logistics Agency review the report recommendations against these current policies and procedures.

The sheer size of the DoD supply system militates against simple solutions to physical security issues. One example, taken from our physical security initiative for the protection of arms, ammunition and explosives (AA&E) may give you an understanding of the size of the problem. Total annual shipments of AA&E in CONUS for FY 86 by motor, rail and air were more than 47,593. This represented 696,208 tons of munitions. The point here is that our supply system is not static, and the control and accountability of materiel moving throughout the world under various field conditions is no small undertaking. You add to this the various requirements of operational readiness including training and forward deployments of operational readiness including training and forward deployments and you have a challenge.

In many of the cases cited by the GAO in their May 1986 report (Inventory Management - problems in Accountability and Security of DoD Supply Inventories), as well as those in the June 1987 Senate Task Force Report, individuals in a position of trust had misused their inside knowledge of the supply system to steal military property. Some of the incidents they cited were

several years old and we had been working to improve related policies and procedures. The Department has continued to react vigorously to this type of problem. For example:

- Each Service has initiated intensive internal security vulnerability reviews to identify and correct physical security deficiencies.

- We have established a DoD-wide physical security threat assessment to identify and correct deficiencies and to promote threat awareness.

- We have increased emphasis on "sting" type operations in cooperation with the FBI, military investigators and the US Customs Service.

- Major efforts are underway to install theft detection devices and barriers and to install computer software checks to detect unauthorized users of the supply system. For example: the Navy has invested $12.5 million in direct security related hardware and added 85 personnel for direct security related positions; the Army has requested more than $17 million for lighting, fencing, and intrusion alarm systems to protect its ammunition stocks, and the Air Force is implementing a revised system to restrict access at its retail supply system to selected authorized individuals.

- Requirements have been established for higher level management review and approval of inventory adjustment documents which mask thefts or supply system abuses.

- Increased security awareness training has been instituted by all of the Services.

- Strong discipline is in place for offenders. We will continue to prosecute vigorously those individuals cited for wrongdoing. Since 1982, we have secured more than 173 convictions in the US District Courts and more than 468 convictions in the military justice system.

- Personnel reliability checks are being instituted.

The foregoing are examples of what we have done thus far to strengthen our inventory controls and physical security. I would now like to address how we plan to bring about even greater controls over the Department's inventory management practices.

Logistics System and Facilities Modernization

As I stated previously, the DoD supply system is people dependent; therefore, we have committed significant resources to upgrading the management systems they use in doing their jobs. Virtually every logistics system is in some stage of being upgraded, be it shipboard or base level, or intermediate level

maintenance or wholesale level maintenance and supply. At the outset of any DoD systems modernization program, we require a statement of need and the expected benefits. There is not a system modernization program in process where we don't expect to make transaction recording easier and more accurate and to provide improved management control reporting.

A major objective of our modernization efforts is to assure that we include appropriate safeguards to make unauthorized access to our supply records and systems more difficult. Since many of our current systems are dependent upon punch card or hard copy input, unauthorized access and transaction errors are often difficult to detect and control. With the technology available today; however, access to systems and files will be controlled by passwords that limit access to computer terminals. Errors also will be significantly reduced by the use of sophisticated error detection cross checks made possible with integrated data base management systems.

The investments we are making in modernizing and integrating our logistics management systems will bring about significant improvements. This is, however, a long term systems modernization program and while we are obtaining some immediate benefits, other changes will not be fully implemented for several more years. However, we are committed to these

improvements and are deriving additional benefits as each day passes.

As you can see, each of the individual Military Services and Defense Agencies has a significant number of major system modernization efforts underway or in the planning stages. Additionally, major improvements are underway in terms of Defense-wide systems. The following are examples of such systems:

- Logistics Applications of Automated Marking and Reading Symbols (LOGMARS). This program complements both our information systems and facility modernization efforts. LOGMARS entails the use of bar codes, similar to those used by supermarkets, for the accurate recording of logistics information. LOGMARS is recognized as a critical improvement initiative in the important areas of materiel receipt, storage and issue.

- Microcircuit Technology. In addition to bar coding we are also prototype testing the use of microcircuit devices. These devices will enable us to maintain the entire transaction history of a specific item on a microchip located on the item itself or to maintain a continuous transaction history for each warehouse storage bin.

The major advantage of both of these technologies is that they will enable us to record and retrieve information easily and accurately at the point where physical inventory functions are performed.

- Modernization of the Defense Logistics Standard Systems (MODELS). The MODELS effort is designed to improve the flexibility and capabilities of our numerous Defense Logistics Standard Systems (DLSS) and to facilitate the interchange of key logistics management data between and among the DoD standard systems. The DLSS provide standard policies, procedures, and formats to facilitate effective communication of vital information between diverse organizations and systems, While the DLSS have evolved steadily during the past decade, information processing and communication technology supporting these systems have evolved even more rapidly. Our procedures and formats are still tied to the old 80 column card which severely limits our ability to capitalize on information processing and telecommunications technology advances. The MODELS initiative is a major step toward improving the ability of the DoD systems to communicate with one another and to bring about improvements in the timeliness and accuracy of logistics information at all levels of DoD supply management.

Another area which will have significant positive effects upon inventory accuracy and security is the investment we are making in modernizing our distribution facilities and systems. Our major storage facilities are in various stages of modernization in terms of physical plant, equipment, and management support systems. These improvements will streamline storage operations, improve security, and simplify surveillance by limiting access to DoD inventories in many cases to machines rather than people. In addition, in most of these new systems, a record of each person accessing the materiel is monitored by the computer.

Future Policy and Procedures Improvements

Now let me turn to the improvements we are making in our policies and procedures. At the Office of the Secretary of Defense level, we establish overall Department policy governing the management and control of materiel. We accomplish this through the issuance of DoD Directives, Instructions and Manuals. These policy issuance serve as the basis for the more detailed policies and procedures developed by the Services and the Defense Agencies. Many of our policy issuances have been revised and strengthened recently. Additional revisions are now in process. The following are examples of significant actions we have underway:

- While we recently reissued Department of Defense Instruction 4140.35, "Physical Inventory Control for DoD Supply System Materiel", we are already developing additional improvements.

  oo Development of inventory control procedures for inventories below the wholesale level. The Logistics Systems Analysis Office conducted a study which compared the DoD Component policy, procedures and programs for the control of supply system inventories below the wholesale level with those contained in DoDI 4140.35 and DoD 4140.22-M which cover wholesale inventories. The study found that the DoD components have patterned their below wholesale level programs after the wholesale program. We are in the process of developing the applicable procedures for inclusion in the DoDI 4140.35 and DoD 4140.22-M to provide DoD level guidance of below wholesale level supply system inventories.

  oo We have initiated a study of the research portion of the DoD Inventory Control Program. The purpose is to examine the effectiveness of the research program and recommend modifications to policy,

procedures, and practices which will improve the efficiency and effectiveness of our research.

oo We also have a study in process to look at the manner in which we measure the effectiveness of our inventory control program. We will be making changes to the Inventory Control Effectiveness (ICE) report as a result of this study.

- A major revision to DoD 4140.22-M "Military Standard Transaction and Accounting Procedures" (MILSTRAP) manual is being staffed with the Services and DLA. This revision incorporates the detailed procedures necessary to implement the new policies contained in the June 30, 1987 reissuance of DoDI 4140.35, which include improvements recommended by previous DoD Inspector General and General Accounting Office audits along with procedural improvements developed by the JPIWG.

- We are developing changes to our systems which will establish a closed-loop system to account for receipt of materiel shipments between wholesale supply depot and Service customers and vice-versa and will provide the means to identify and correct causes of shipment/receipt discrepancies.

- A new policy issuance on "Safeguarding the DoD Logistics System" is being developed. This issuance will require that each Military Service and DLA develop, maintain, and execute a comprehensive program for safeguarding the supply system and its inventories. Required programs will cover supply system threat awareness and risk assessment, physical security of materiel, systems and information, and loss prevention and detection.

- We are modifying the manner in which we identify items which require demilitarization when we dispose of them. We are taking action to identify those items which should also be coded such that additional controls are exercised over them while the are in the DoD inventory.

Secondary Item Inventory Growth and Control

The last topic I want to discuss is inventory growth. Since 1980 requirements for inventories of materiel stocks in DoD have increased more than 100%, growing from $43 billion to more than $90 billion. Much of this increase relates directly to the efforts of the Reagan Administration to improve materiel readiness, introduce new, modern weapons into the Defense arsenal, and to increase operating tempos of current forces. Earlier this year I testified before the Senate Armed Services

Readiness Subcommittee in detail on the Department's multifaceted efforts to improve military capability. At that time I identified materiel readiness as a key ingredient of our program to rebuild the nation's defense posture. Significant increases in materiel inventories of spare parts, consumable and personnel support materiel are a cornerstone of this effort. We strongly believe that proper levels of investment in spare parts inventories coupled with materiel maintenance investment are essential to achieve and maintain a ready, fully capable force. We have been consistently supported by the Congress in this endeavor and there have been significant achievements.

At the same time, the Secretary and I have recognized that unconstrained growth of materiel stockpiles can be as counter-productive to military capability as materiel shortages; as such, growth may divert budgetary, facilities and personnel resources from modernization and expansion. As early as 1983, DoD initiated a comprehensive analysis of the causes of inventory growth to insure that maximum management attention was given to providing the proper level of inventories to support force modernization and increased operating tempos while limiting the growth of "unneeded" inventories. Later, we formalized our management attention on inventory growth by making this issue a continuing agenda item before the Defense Council on Integrity and Management Improvement (DCIMI). Our initial analysis showed that price increases have accounted for

approximately 60 percent of the growth of materiel inventories since 1979. A significant portion of this relates to the impact of inflation in the early 1980s. As numerous Department officials have discussed in past testimony, and as documented in our annual report on Spare Parts Initiatives, DoD has an aggressive and highly successful program in place to insure we obtain the best possible prices through the competitive market process.

In analyzing the growth of DoD's materiel inventories and in devising a program to manage these inventories effectively, it must be recognized that all materiel enters the inventory as a result of procurement action. Spares and repair parts are bought as installed items, as initial support stocks, or as replenishment stocks. Daily, with the help of mechanization and sophisticated models our inventory managers make conscientious decisions concerning the amount of materiel to buy. These decisions are based on known demand from the past and predicted demand in the future; but we do not live in a static environment, and the demand is not always constant. Therefore, some of the items that we buy in good faith today cause us to have additional stocks when actually delivered, and some level of materiel that had applicability yesterday may no longer be applicable today. If we can improve our requirements computation methods, we will improve readiness and at the same time, reduce unnecessary inventory investment. We have already

initiated several programs with the objective of reducing inventory growth. We have, for example, isolated the logistics areas where high growth is occurring. These include procurement lead times, non-demand-based stockage requirements, economic order quantities, repair cycle times, increases in stockage at retail levels of supply and budgeting practices. We have ongoing programs in each of these areas to effect fixes or, at least, improvements to minimize unneeded inventory growth.

For example, in the area of procurement lead time we saw dramatic increases in both DoD and private industry during the early 1980's. However, lead times in industry have been reduced significantly in the past several years while those in DoD have increased dramatically. Most of the reasons for these increased lead time requirements rest with Department policies and Congressionally-mandated requirements to increase competitive procurements. While we wholeheartedly support increased competition as a means to reduce prices, we must deal decisively with the impacts of increased administrative times to solicit multiple sources of supply. We have, in fact, established a formal program to reduce lead time requirements by improving automation of the purchasing process, using multi-year procurement techniques, establishing more flexible contracting arrangements with major suppliers, and seeking relief from policies and regulations that impair efficient procurements practices. Other efforts are also underway to shorten depot

repair cycles, eliminate unneeded "safety level" stocks, authorize non-demand based items only for the most essential readiness-related items, update our policies on effective use of economic order quantity techniques, and to apply technology enhancements, particularly "off-the-shelf" technologies available from the private sector.

We have also recognized that the policy and procedural improvements mentioned above are often long-range in their development and implementation. As a clear signal of DoD management's intent to attack inventory growth we have made substantial program and budget reductions during the past several years to emphasize our efforts and to effect real savings. For example, in our FY 1986 program review, we approved a $1.7 billion reduction over the 5 year planning period in purchases of consumable materiel. In our 1986 and 1987 budget reviews we reduced purchases of supplies by nearly $1 billion through corrections to pricing policies and forecasted budget additives. In the FY 1988 budget review we reduced materiel purchase plans by more than $2 billion.

In addition to the issue of inventory growth resulting from increased procurements, I would also like to address the related question of "retention stocks," that is materiel, previously procured, but for which there is no immediate requirement for issue to the operating forces. Our experience with these types

of inventories indicates generally that it is less expensive to retain materiel, already purchased, for extended periods of time than to dispose of such stocks and be subject to later reprocurement of the same materiel often at increased prices. Our continuous efforts to manage these stocks, often characterized as "long supply" inventories have resulted in the development of several management categories which reflect the reasons for retention of these stocks in DoD warehouses. "Economic Retention" stocks are held based on established criteria or mathematical models which compare the cost-to-procure materiel with the cost-to-hold that same materiel. If reprocurement costs exceed holding costs, the inventories are retained. "Contingency Retention" stocks are held for known future military contingencies, planned sales to foreign friends and allies, and to support needs for technologically obsolescent items such as vacuum tubes for which there are limited production capabilities. "Numeric Retention" stocks are held based on specific management decisions. For example, in 1985, on the recommendation of the DoD IG, I directed DoD Inventory Managers to retain all inventories of materiel applicable to active weapon systems. This decision assures continued support for older. less active weapons despite downward fluctuations in demand which often could result in premature disposals. Today, our policies are biased toward prudent retention of stocks as a low-cost hedge against

unforeseen military contingencies (i.e. Battle Ship and Mine Sweeper Reactivation) and to minimize reprocurement costs. This policy has resulted in some increase to total inventory growth.

After passing our rather rigid retention screening process, materiel identified as "potential excess" is further reviewed for cross-Service needs; later, other federal agencies are given the opportunity to utilize this materiel; state and local governments, and finally designated educational and charitable organizations can receive "excess" materiel. In recent years, a growing amount of excess DoD materiel has been used to support humanitarian aid programs both in the U.S. and overseas.

We are conducting an intensive analysis of all the factors contributing to the inventory growth including; price increases, increased operating tempos, force modernization, safety levels, procurement and repair cycle times, retention levels, etc. Our goal is to identify and take action to limit growth that does not contribute to the modernization, readiness and sustainability of our forces.

In the aggregate, the changes we are making in our procedures will greatly improve our record keeping and control and better enable DoD materiel managers to prevent and detect losses. We believe they will close the remaining policy voids that led to the problems cited by the GAO.

In conclusion, I want to emphasize that inventory accuracy and security are among the highest priorities in DoD. We know that with a system as complex and large as ours, we will never reach perfection. However, we have committed significant resources to achieve more stringent inventory record and physical security controls and our investments are paying off. While we are pleased with the improvements made thus far, we are not satisfied and have undertaken numerous initiatives which will bring about much greater improvements in the future.

We must remember, however, that there is a great deal of difference between policy development and policy implementation. Regardless of the policies and management procedures we have in place, the DoD inventory management system will always be people dependent. Therefore, we must continue to be vigilant at all times of the potential control and security problems that will remain.

Mr. Chairman, you and the other members of this Committee, have always been supporters of a strong national defense. We deeply appreciate your past support. However, we are keenly aware that your continued support is contingent upon our ability to justify that we are spending limited taxpayer dollars wisely. Therefore, we welcome these hearings as a constructive dialogue to obtain the views of the Congress to develop better solutions to these long-standing problems.

Thank you again for allowing me to appear before you today. I will now answer any questions you may have.

SECONDARY ITEM INVENTORY GROWTH CHART EXPLANATIONS

GENERAL

The Department of Defense (DoD) defines secondary items as minor end items, replacement assemblies, spare components, repair parts, and personnel support items and consumables other than principal items (aircraft, tanks, and ships). Examples of secondary items include aircraft, tank, and ship components and parts, construction, medical and dental supplies, subsistence, clothing, and fuel.

CHART I: DOD INVENTORIES OF SECONDARY ITEMS, OVERALL GROWTH 106 PERCENT, 1980-1986

Between 1980 and 1986 DoD inventories of secondary items more than doubled--increasing from $43.4 billion in 1980 to $89.6 billion in 1986. This 106 percent increase totaled $46.2 billion.

CHART 1A: RATIO OF SECONDARY ITEMS TO WEAPONS AND EQUIPMENT

However, when compared to the growth of weapon systems over the same time period, the ratio of secondary items to support weapon systems has remained at 25% in terms of dollars: DoD has not been able to improve this ratio over the past six years.

CHART II: SECONDARY INVENTORIES OF LONG SUPPLY, OVERALL GROWTH 189 PERCENT, 1980-1986

DoD divides the secondary item inventory into a number of categories which fall into two major groups: the Approved Force Acquisition Objective (AFAO) and long supply. Stocks categorized as AFAO include the budget year peacetime operating stock and war reserves. Generally, DoD defines long supply as stock with no known present peacetime or wartime requirement. Long supply includes stocks categorized as retention stocks (approved force, contingency, economics and numeric) and potential excesses.

The value of items in long supply grew from $10.2 billion in 1980 to $29.5 billion in 1986. The growth of $19.3 billion represents an increase of 189 percent.

CHART II A: COMPOSITION OF SECONDARY ITEMS FOR 1986

It is useful to explain DoD's definition of long supply. This graphics shows the total dollar make up of secondary items for 1986 of the total inventory of $90 billion, long supply, 29.5 billion, consists of these four categories (pointout). The economic retention stock represents a quantity of an item excess to AFRS determined to be more economical to retain for future peacetime issues rather than replacement of future issues by procurement. Contingency retention stock is the portion of the

quantity of an item for which there is no predictable demand or quantifiable requirement but will be retained for possible contingencies. Numerical retention stock is the quantity of an item in excess of known requirement objectives but for which disposal is infeasible or uneconomical or for which a decision was made to retain stock in the inventory. Potential excess stock represents stock that is above authorized retention levels but for which a final determination as DoD excess material has not been made.

CHART III: DOD INVENTORY OF SECONDARY ITEMS, % GROWTH OF AFAO VS LONG SUPPLY .

This chart compares the percentage growth of the value of items in AFAO to growth of items in long supply between 1980 and 1986 (1980 is 100 percent). The chart shows that the value of items in long supply nearly tripled during the period (growing by 189 percent) whereas the value of AFAO items nearly doubled (100 percent). It is generally agreed between GAC, GAO and DoD staff that growth in long supply is bad growth.

CHART III A: DoD COST OF SECONDARY ITEMS AFAO VS LONG SUPPLY

When one looks at actual dollar value of AFAO vs long supply, it show long supply going from one-third of AFAO in 1980 to about one-half in 1986.

CHART IV: DEMANDS FOR SECONDARY ITEMS (IN 000'S)

During the 1980-1986 period when the secondary inventory was growing by over $46 billion (106 percent), the number of demands for secondary items remained relatively constant. The number of demands increased about 11 percent from 1980 to 1984 (from about 29 million to nearly 32 million). By 1986, the number of demands had dropped back to the 1980 level.

CHART V: SUPPLY AVAILABILITY OF SECONDARY ITEMS

From 1980 to early 1987, supply availability also remained relatively constant. The percentage of demands satisfied was 87.2 percent in 1980. By 1987, demands satisfied had decreased to 84.8 percent.

DEFINITIONS

1. Approved Force Acquisition Objective. The quantity of an item authorized for peacetime acquisition to:

a. Equip and sustain the U.S. approved Forces in accordance with the latest Secretary of Defense guidance memoranda:

(1) In peacetime, the AFAO will be measured from the beginning of the apportionment year and will consist of the number of months contained in the period from the beginning of the appointment year through the date of the last buy in the budget year (or end of the year for items not in a buy position) plus appropriate lead times. For items not in a buy position during the budget year, this period will be 24 months for a September 30 cutoff. When recomputed on a stratification cutoff date other than September 30, the full AFAO requirement will be developed by entering an appropriate adjustment in the balance AFAO entry.

(2) In wartime, from D-Day through the period and at the level of support prescribed.

b. Equip and sustain allied forces by satisfying:

(1) Requirements of OSD-approved prestockage programs for MAP (Grant Aid) countries.

(2) Requirements of approved supply support arrangements with foreign military sales (FMS) program countries.

(3) Wartime requirements from D-Day through the period and at the level of support prescribed, for those allies authorized this support in the latest Secretary of Defense guidance memoranda.

c. Provide support for other U.S. Government departments and agencies, as authorized.

2. Long Supply. Long supply is a shorthand term to describe stock with no known present peacetime or wartime requirements. Long supply stock includes economic retention stock, contingency retention stock, numeric retention stock, and potential excess stock. Each of these categories is described below.

3. Economic Retention Stock. That portion of the quantity of an item excess to the AFAO determined to be more economical to retain for future peacetime issues instead of replacement of future issues by procurement. To warrant economic retention, items must have a reasonably predictable demand rate.

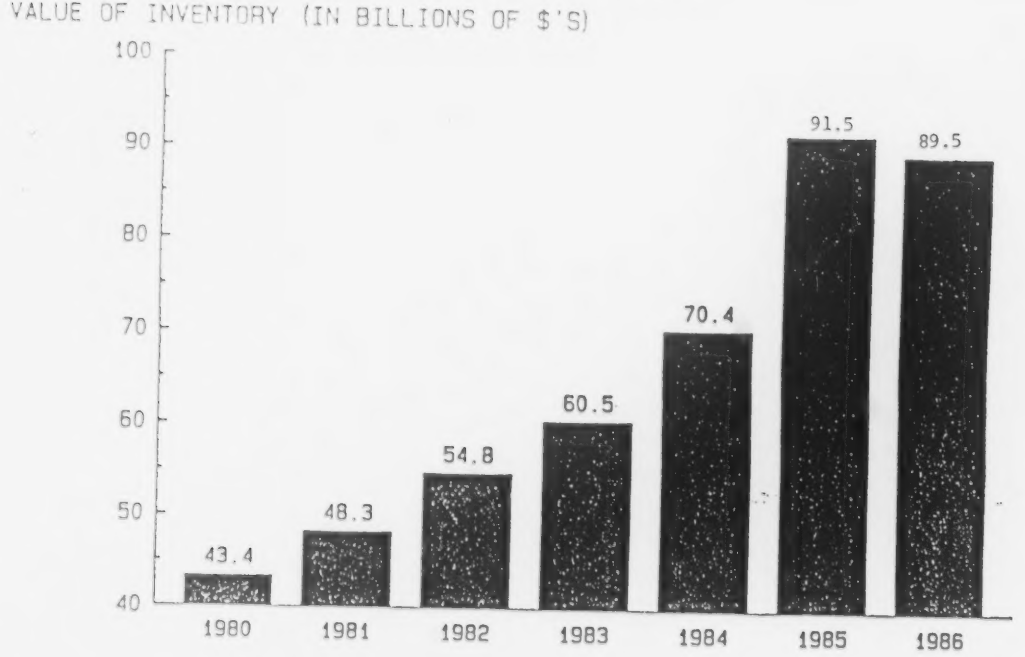
4. Contingency Retention Stock. That portion of the quantity of an item excess to the AFAO for which there is no predictable demand or quantifiable requirement, and that normally would be allocated as potential excess stock, except for determination that the quantity will be retained for possible specific contingencies. (Category C ships, aircraft, and other items being retained for contingency reserve will be included in this stratum.)

5. Numeric Retention Stock. The quantity of an item in excess of all identified requirement objectives but for which disposal is currently infeasible or uneconomical or for which a management decision has been made to retain stock in the supply system. Normally, numeric retention stock will be no greater than the sum of on-hand and due-in assets.

6. Potential Excess Stock. The quantity of an item above all authorized retention levels but for which final determination as DoD excess material has not been made.

CHART I

DOD INVENTORIES OF SECONDARY ITEMS
OVERALL GROWTH 106 PERCENT
1980-1986



Secondary items include:
spare parts, repair parts and commodity items
source: DoD Supply System Inventory Report

CHART I A

RATIO OF SECONDARY ITEMS TO WEAPONS AND EQUIPMENT

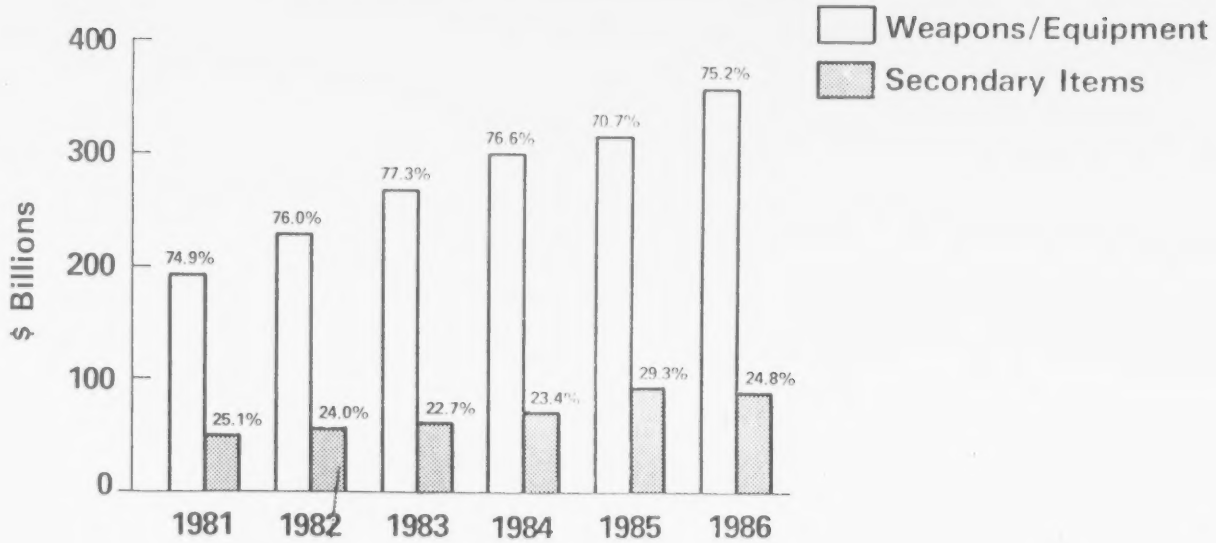
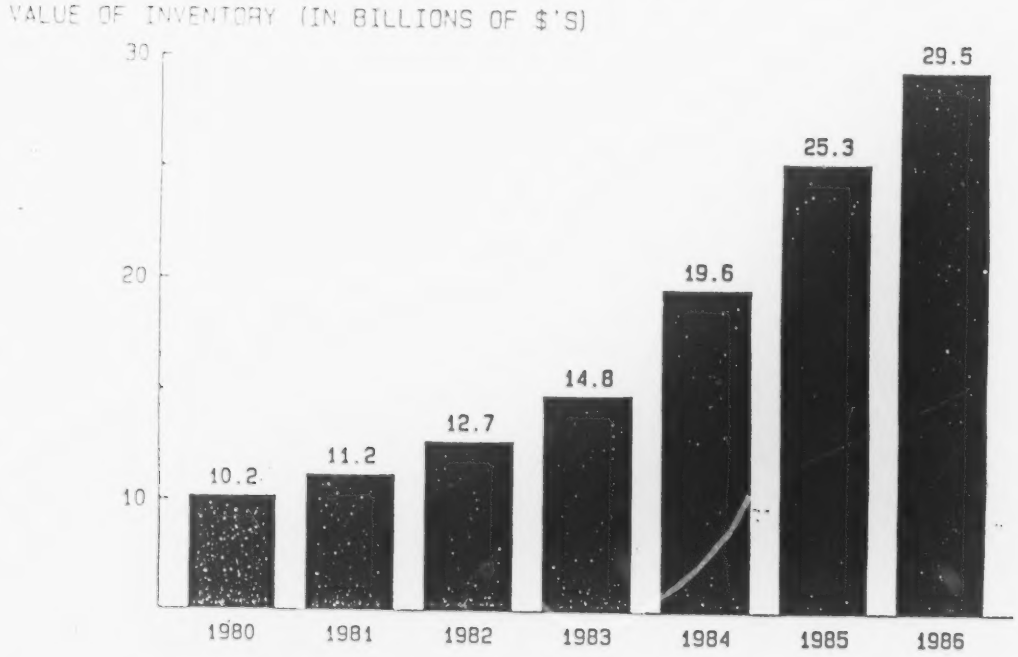


CHART II

SECONDARY INVENTORIES OF LONG SUPPLY
OVERALL GROWTH 189 PERCENT
1980-1986



Secondary items include:
spare parts, repair parts and commodity items
sou · DoD Supply System Inventory Report

CHART II A

COMPOSITION OF SECONDARY INVENTORIES FOR 1986

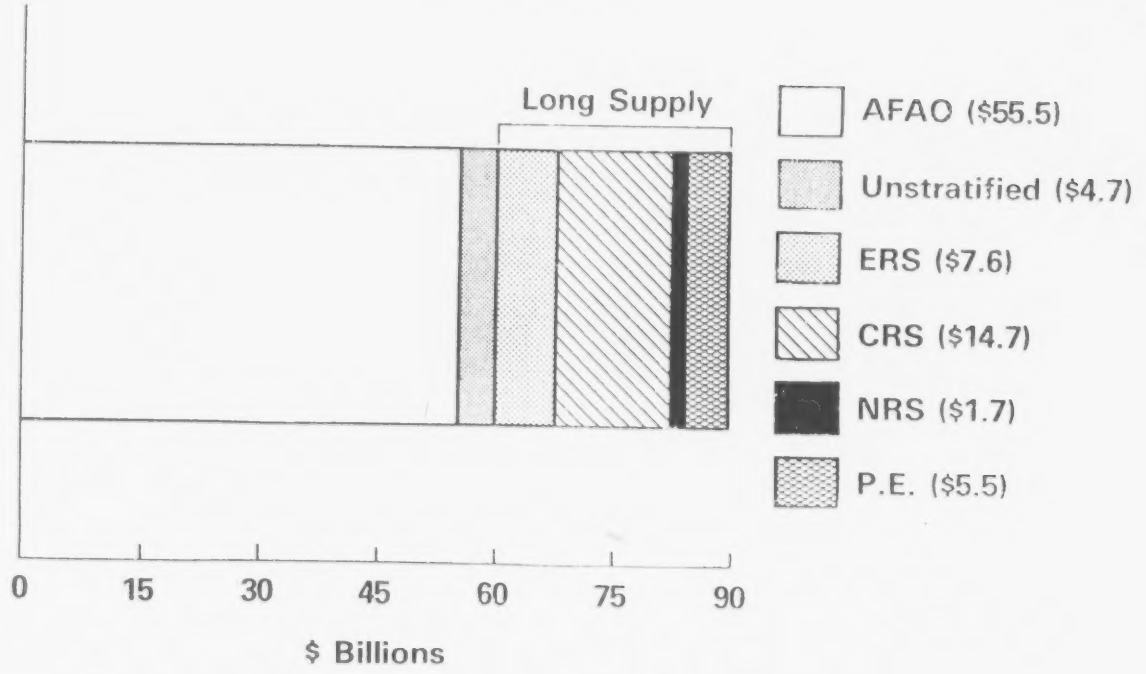
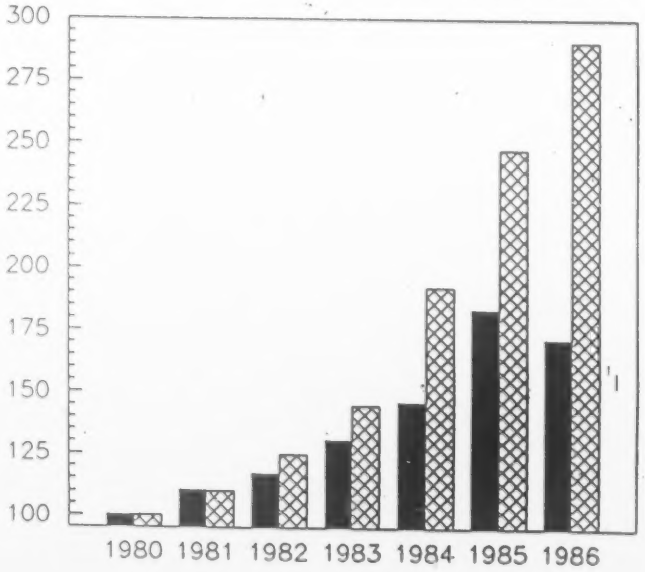


CHART III

DoD INVENTORY OF SECONDARY ITEMS
% GROWTH OF AFAO vs. LONG SUPPLY

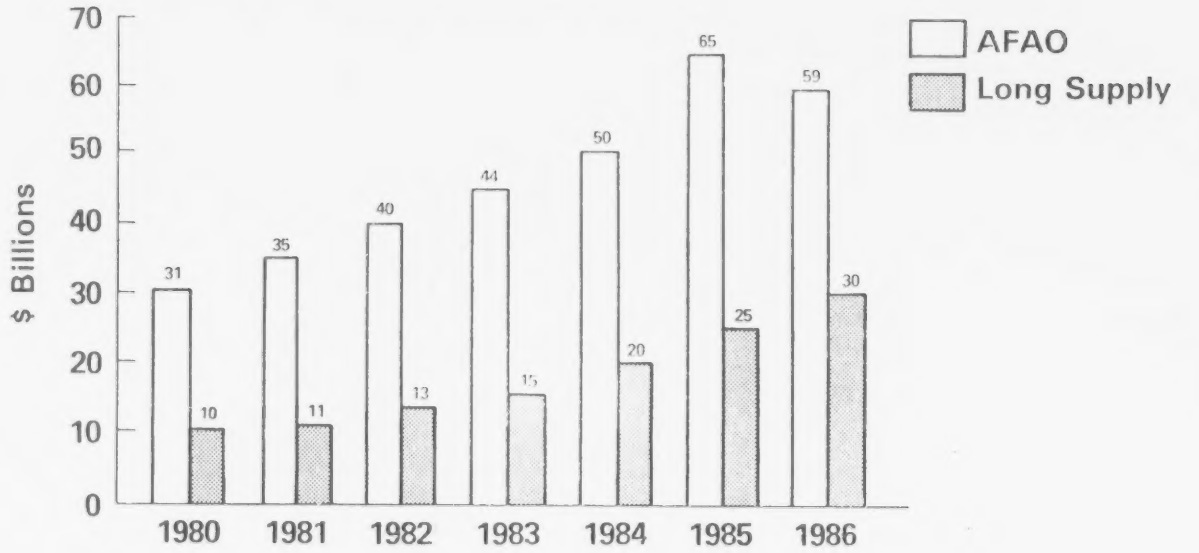


* AFAO is the Approved Force Acquisition Objective stock, which includes war reserves and peacetime operating stocks for the budget year.

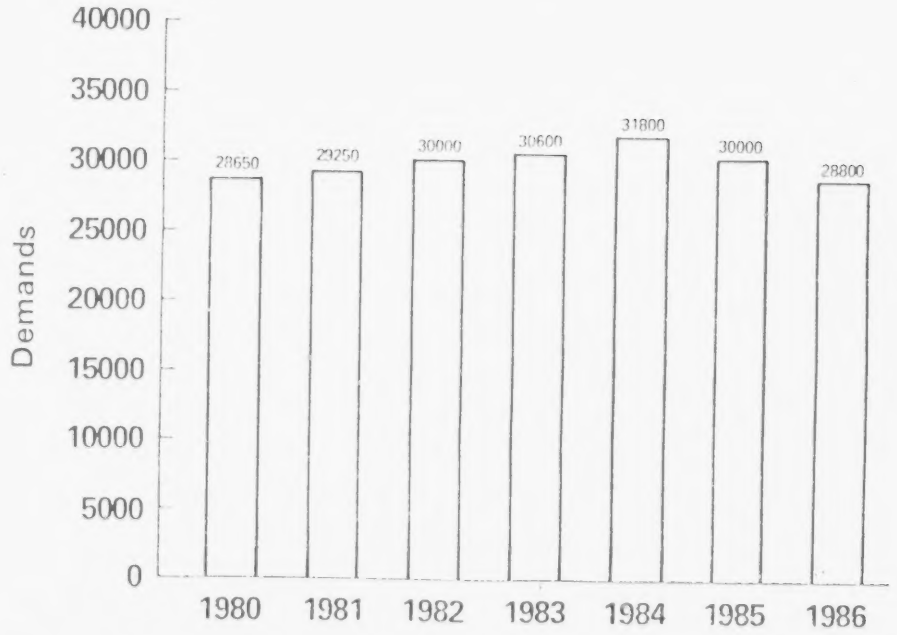
** Long supply is stock with no known present peacetime or wartime requirements.

CHART III A

DoD COST OF SECONDARY ITEMS
AFAO VS. LONG SUPPLY



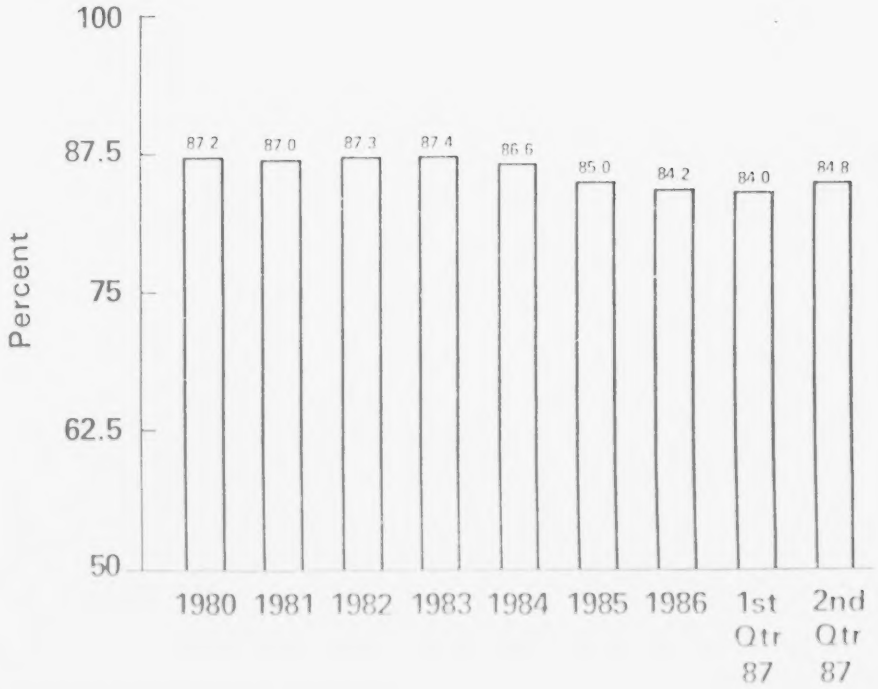
DEMANDS FOR SECONDARY ITEMS
(in 000s)



Secondary Items Include:
Spare Parts, Repair Parts and Commodity Items
Source: DoD

CHART V

SUPPLY AVAILABILITY OF SECONDARY ITEMS



Secondary Items Include:
Spare Parts, Repair Parts and Commodity Items
Source: DoD

DEPARTMENT OF THE NAVY
NAVY SHIPS PARTS CONTROL CENTER
5450 CARLISLE PIKE
P.O. BOX 2020
MECHANICSBURG, PA. 17055

AREA CODE 717
700-
AUTOVON 430 & EXT
FTS 984 & EXT
IN REPLY REFER TO

4 June 1985

Space Microwave Lab, Inc.
1255 N. Dutton Ave.
Santa Rose, CA 95401
Attn: Bill Konvalinka

Dear Sir:

I am asking for your personal attention and assistance in resolving a major problem that we have at Navy Ships Parts Control Center (SPCC). Our records indicate that you have a Repair Basic Ordering Agreement (BOA) with SPCC. Your volume of repair action may or may not be large; but, in either case, we have a problem in that our computer files have no visibility of our repairable components in your facility. Due to this lack of information, we have great difficulty in making accurate supply decisions as to when and how much to buy or repair.

I am proposing a very simple solution to this problem. I have established a group of people who will call your company on a weekly/monthly basis and ask for information concerning movement of our repairable components. Your people are required to keep records on this anyway. Our operators will simply enter this information into the computer. The attached reporting requirements statement provides an outline of the information we at SPCC require from you.

What I would like for you to do is to direct the appropriate person/persons in your organization to contact the following people for additional directions/information: Mrs. Jan Heberlig, (717) 790-7598; Mrs. Nan Boger, (717) 790-7657.

Your cooperation in this matter is greatly appreciated.

Sincerely,

M. L. JENKINS
Director,
Repairables Policy
and Systems Office

United States General Accounting Office

GAO

Report to Congressional Requesters

October 1987

ARMY INVENTORY MANAGEMENT

Inventory and Physical Security Problems Continue

GAO/NSIAD-88-11

GAO

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-222859

October 9, 1987

The Honorable John Glenn
Chairman, Committee on Governmental Affairs
United States Senate

The Honorable Pete Wilson
United States Senate

As requested in Senator Wilson's letter of April 15, 1986, we reviewed the Department of the Army's inventory management. This is one in a series of reports related to the effectiveness of defense logistics.

As arranged with your Offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time, we will send copies to interested committees and other members of Congress; the Secretaries of Defense and the Army; and the Director, Office of Management and Budget. Copies will also be made available to other parties upon request.

Frank C. Conahan

Frank C. Conahan
Assistant Comptroller General

Executive Summary

Purpose

The Department of the Army maintains wholesale and retail inventories valued in the billions of dollars to meet the needs of its forces throughout the world. To ensure economic and effective supply support, it is essential that Army wholesale and retail inventory managers maintain sufficient but not excessive inventories. Accurate inventory records and adequate physical security over the inventories are integral elements in providing this assurance.

GAO evaluated the accuracy and completeness of the various indicators used by management to assess the effectiveness of its inventory management. GAO also assessed the adequacy of the physical security over the inventories at several locations.

Background

The Army wholesale system is comprised of six inventory control points which determine inventory requirements and procure the items, and three major wholesale distribution depots which receive, store, and issue stock to retail activities. In fiscal year 1986, the wholesale system had inventories of over $22 billion.

The Army retail system is decentralized, and is comprised of numerous supply support activities at Army bases and installations located throughout the world. The amount of inventory managed at the retail level is not readily available, but it has been estimated in the tens of billions of dollars.

Because the Army's effectiveness indicators do not provide a representative view of how well the inventory is being managed, GAO took a statistical sample of items managed by the Tank-Automotive Command (one of the larger inventory control points that manages about $4 billion of inventory) and stored at the New Cumberland Army Depot (one of the three major wholesale distribution depots). The sample results were projected to the universe of items stored at that depot and were compared to what was being reported to the Army and the Department of Defense (DOD).

Results in Brief

The inventory effectiveness indicators, while generally complying with DOD policy, are misleading and do not reflect the degree of inventory inaccuracies that exist at the wholesale and retail levels. As a result, Army and DOD management may not have complete and accurate information for making many important inventory decisions.

Physical security over sensitive munitions also is a problem. The lack of proper storage facilities, insufficient serial number control over the munitions, and guard personnel problems all add up to increased vulnerability of these type of weapons.

Many of the same inventory management problems have been previously reported by GAO and others over the past several years, and promised corrective actions have either not been taken or have not proven effective.

Principal Findings

Inventory Adjustment Indicator

Improper handling of inventory adjustments has masked the degree of inventory inaccuracies that exist at the wholesale and retail inventory levels. In fiscal year 1986, the Tank-Automotive Command reported inventory adjustments of $24 million when, in fact, its inventory adjustments totaled about $390 million. The $366 million difference represents reversals of earlier transactions and are not counted as adjustments for reporting purposes. GAO believes that all adjustments should be reported.

GAO found instances where the Army did not make necessary and required physical inventories before making record adjustments when variances were found between custodial and accountable records.

The problem of underreported adjustments is compounded because the Army's research of the variances between its physical inventories and its records have focused primarily on reconciling the variances rather than identifying why the variances occurred.

Record Accuracy Indicator

GAO inventoried a statistical sample of 330 items and found that the inventory records for about 56 percent of the items were inaccurate. These inaccuracies, when projected to the universe, represent about 13,400 of the 23,800 Tank-Automotive Command items stored at the depot. For fiscal year 1986, the Tank-Automotive Command reported a record accuracy rate of 91 percent. This percentage was arrived at by excluding all inventory variances of $800 or less which is in accordance with DOD policy. GAO considered a record to be inaccurate regardless of the dollar amount of the variance.

GAO's sample results also showed significant dollar and unit variances between the value of items inventoried and the value recorded. In addition to record accuracy, GAO believes that unit and dollar variance could provide management with an added perspective on inventory management effectiveness.

Physical Security

Adding to the problem of inventory inaccuracy is the need for better physical security over items—particularly at overseas locations. The physical security deficiencies GAO found included storing sensitive munitions in improper facilities which were not properly protected by intrusion detection sensors, and failure to follow prescribed procedures for maintaining serial number control over the munitions.

Collectively, the problems of inaccurate inventories, not knowing the cause of the inaccuracies, and poor physical security make Army inventories highly vulnerable to theft, diversions, or other abuses. None of these areas were reported as part of the Army's annual assessment of inventory management of internal controls.

Recommendations

GAO recommends that the Secretary of the Army direct the inventory managers to:

- Perform a physical inventory of all variances disclosed by comparing the accountable and custodial records, and use the results of the inventory as the basis for making inventory adjustments.
- Report all inventory variances between the physical inventories and accountable records and use the variances in determining inventory management effectiveness.
- Develop an inventory methodology to obtain a more representative and realistic view of its inventory management effectiveness.
- Reemphasize the need for effective research that identifies the reasons for the variances and track these reasons over a period of time to identify any systemic problem areas.

GAO is also making other recommendations which are discussed in chapter 6.

Agency Comments and GAO's Evaluation

DOD generally agreed with all of GAO's recommendations and identified specific actions they plan to implement.

GAO considers DOD's proposed actions to be a step in the right direction and plans to monitor DOD's implementation actions.

Contents

Executive Summary		2
Chapter 1 Introduction		10
	Importance of Accurate Inventory Records	10
	Prior Audits	11
	Objectives, Scope, and Methodology	13
Chapter 2 The Extent of Wholesale Inventory Record Inaccuracy Is Not Being Reported		14
	Reported Inventory Accuracy Is Misleading	14
	Impact of Computer Processing Problems on Inventory Accuracy and Reporting	17
	Army's Proposal for Developing a New Inventory System	19
	Ineffective Quality Control	19
	Causative Research Not Identifying Causes	20
	Assessment of Internal Controls	21
Chapter 3 Our Assessment of Wholesale Inventory Accuracy		23
	Unscheduled Inventories Detract From Obtaining a Representative View of Inventory Accuracy	23
	Record Accuracy Problems Affect All Dollar Stratas	24
	Dollar Variance Indicates Problems With High-Dollar Items	25
	Unit Variance Shows Results Similar to Dollar Variance	26
Chapter 4 Inventory Accuracy and Causative Research Need to Be Improved at the Retail Level		28
	Inventory Records and Reports Are Often Inaccurate and Incomplete	28
	Causative Research Is Incomplete and Not Used to Identify Underlying Causes	31

Chapter 5 Improved Physical Security Is Needed to Safeguard Inventory Supplies, Including Sensitive Munitions
25th Infantry Division 34
3d Armored Division 34
Accountability and Control Over Sensitive Munitions 35
35

Chapter 6 Conclusions and Recommendations
Conclusions 40
Recommendations 40
Agency Comments and Our Evaluation 41
42

Appendixes
Appendix I: Current Status and Our Evaluation of DOD's Actions on Our Recommendations in the November 1983 Report on Inventory Accuracy 44
Appendix II: Activities Visited 47
Appendix III: Our Estimate of the Record Accuracy, Dollar Variance, and Quantity Variance, at a 95-Percent Confidence Level for TACOM-Managed Items at New Cumberland Army Depot 48

Tables
Table 2.1: Reversal Transactions and Dates of Latest Inventory 16
Table 3.1: Inventories Completed at New Cumberland (Scheduled and Unscheduled) 1984-86 23
Table 3.2: Initial Record Accuracy Rate for Sample Line Items by Unit Price 24
Table 3.3: Projected Record Inaccuracy for TACOM-Managed Line Items at New Cumberland 25
Table 3.4: Dollar Variance by Unit Price for TACOM-Managed Items at New Cumberland 26
Table 3.5: Unit Variance by Price for TACOM-Managed Items at New Cumberland 27
Table 4.1: Inventories Done and Range of Accuracy Rates 30
Table 4.2: Inventory Adjustments During 1986 for the Six Direct Support Units 31

Abbreviations

ALMSA	Automated Logistics Management Systems Activity
AMC	Army Materiel Command
DOD	Department of Defense
GAO	General Accounting Office
ICP	inventory control point
OSD	Office of the Secretary of Defense
SAILS	Standard Army Intermediate Level Supply
TACOM	U.S. Army Tank-Automotive Command

Chapter 1

Introduction

Army inventories are managed at two supply levels: (1) the wholesale supply level, comprised primarily of six inventory control points (ICPs) and three major wholesale distribution depots and (2) the retail supply level, made up of units, posts, camps, and stations. The Army wholesale system is centrally managed by the Army Materiel Command (AMC). The ICPs compute item requirements and procure the items and the depots receive, store, and issue stock to retail activities. During fiscal year 1986, the Army managed wholesale inventories valued at about $22 billion.

The Army retail system is decentralized. It consists of hundreds of supply support activities at Army bases and installations located in the United States and overseas. These activities range from small forward support units to large installation and division support organizations. The value of inventory at these locations is not readily available; however, the Army estimates the value in the tens of billions of dollars.

Importance of Accurate Inventory Records

Inventory records are the basis for many management decisions that directly affect what items to buy, when to buy, and how many to buy. Accurate inventory records are essential if management is to meet the needs of the operating units it supports. Inaccurate inventory records can result in unnecessary procurements, critical supply shortages, or accumulations of excess stock. All of these can have an adverse effect on the readiness and capability of U.S. forces.

The Army maintains two types of inventory records for each item. The ICPs maintain the official inventory record called the accountable record and the depots maintain the custodial record. Periodically, these two records are reconciled to determine if they accurately and consistently reflect the availability of items in the wholesale system.

At the wholesale level, the Army uses two key indicators to measure the effectiveness of its inventory management—record accuracy rate and the gross adjustment rate. Both of these indicators are calculated after the inventory records are compared to the physical count for the same items. The record accuracy rate is computed based on the number of inventory records not requiring major adjustments divided by the number of inventory records represented by the items inventoried. The gross adjustment rate, used by the Army as an indicator of inventory management effectiveness, is the value of all adjustments—gains and losses—compared to the average dollar value of the inventory. The

Army has established a goal of 90 percent for record accuracy and 6 percent per year for the gross adjustment rate.

At the retail level, record accuracy is computed based on the number of inventoried items not requiring adjustment of $25 or more compared to the total number of items inventoried. The Army's record accuracy goal at the retail level is 90 percent.

Prior Audits

Problems with Army supply management and record inaccuracies are well documented. Numerous reviews by us, the Army Audit Agency, and other audit groups have highlighted problems in the inventory management area for a number of years.

In a 1981 report,[1] we examined Army policy, procedures, and automated logistics programs relative to the management of inventories at the retail level. We reported that retail activities overstated stock requirements and inflated budget requests for procurement funds and spending authority by millions of dollars annually because of inaccurate order ship time, inventory records, and demand data used in requirements computations. These problems existed because prescribed policies and procedures were either inadequate or were not being properly implemented.

In a November 1983 report,[2] we noted that the inaccuracy of the Army, Air Force, and Defense Logistics Agency inventory records was much greater than reported to the Department of Defense (DOD). This was because a large percentage of inventory adjustments was improperly excluded from statistics reported to DOD. Also, in many cases, physical inventory adjustments were not made because of arbitrary and erroneous reconciliations of physical inventory variances.

We attributed many of the problems to inadequate management emphasis and priority on maintaining accurate inventories, the need for more effective quality control review, noncompliance with DOD's policy, shortage of qualified personnel, and lack of individual accountability for

[1]Opportunities Still Exist For the Army to Save Millions Annually Through Improved Retail Inventory Management (LCD-81-16, Jan. 19, 1981).

[2]Navy's Progress in Improving Physical Inventory Controls and the Magnitude, Causes, and Impact of Inventory Record Inaccuracies in the Army, Air Force, and Defense Logistics Agency (NSIAD-84-9, Nov. 4, 1983).

actions affecting inventory record accuracy. The Army and DOD generally concurred with our findings and proposed certain actions to correct these problems.

As discussed throughout this report, corrective actions were either not taken or if taken, the results have not proven effective. The lack of effective corrective actions can be attributed, in part, to the fact that many of the inventory management weaknesses are masked by the reported statistics which show the Army is doing a good job in managing its inventory. However, as demonstrated by this report, the reported statistics, while generally complying with DOD policy, are extremely misleading for gauging the effectiveness of inventory management. The current status of the Army's actions and our evaluation of these actions is shown in appendix I.

In November 1984, as part of a DOD-wide audit of physical inventory adjustments, the Army Audit Agency reported problems with the Army's inventory controls and inventory record accuracy, including

- inventory adjustments not being accurately recorded and reported,
- accountable records not being properly adjusted,
- causative research[3] to determine the underlying reasons for inventory variances not being adequately performed, and
- quality control program reviews not being of sufficient depth and scope to identify specific causes for inventory inaccuracies.

In May 1986, we again reported[4] on the results of inventory management practices in the services and Defense Logistics Agency. Our report identified significant supply-management problems in the areas of receipt confirmation, records accuracy, inventory taking, reconciliation and research of inventory discrepancies, retail activity controls over inventory, and physical security.

Although the services and Defense Logistics Agency had taken some corrective actions in response to the prior reports, they continued to experience significant inaccuracies in inventory records and physical inventory adjustments, and in many cases, causative research was ineffective.

[3]Causative research is an in-depth investigation of inventory adjustments to determine why they occurred.

[4]Inventory Management: Problems in Accountability and Security of DOD Supply Inventories (NSIAD-86-106BR, May 23, 1986).

Objectives, Scope, and Methodology

The objectives of this review were to assess in greater detail the problems identified in our May 1986 report, and the Army's actions to address these problems. More specifically, our objectives were to determine and evaluate the (1) effectiveness of Army inventory control procedures, including inventory management and reporting practices, (2) reported accuracy of inventory records, (3) effectiveness of physical security being provided to control and safeguard inventories, (4) corrective actions needed to improve inventory management effectiveness, and (5) adequacy of internal controls in the inventory management area.

Our review, at the wholesale level, was performed at the Army's Tank-Automotive Command (TACOM), one of six Army ICPs, and the New Cumberland Army Depot, one of three major wholesale distribution depots. As of May 1987, TACOM-managed items were valued at about $4 billion. Of this total, we estimate about 23,800 items valued at about $453 million were stored at New Cumberland. Our review at the retail level was performed at selected inventory activities at the 4th Infantry Division and the Installation Supply Activity at Fort Carson, Colorado; the 25th Infantry Division at Schofield Barracks, Hawaii; and the 3d Armored Division in the Federal Republic of Germany. (See app. II for a complete list of the activities we visited.)

To assess inventory record accuracy and other measures of effectiveness, we inventoried a statistical sample of 330 TACOM-managed items stored at the New Cumberland Army Depot. We compared our inventory results to what was shown on the custodial records and the accountable records. We projected the results of our physical inventory at a 95-percent confidence level to the universe of all TACOM-managed items stored at New Cumberland. Using this information, we computed various inventory effectiveness measures and compared these to the effectiveness measures reported by TACOM to higher headquarters and DOD.

Our review was performed in accordance with generally accepted government auditing standards from June 1986 through May 1987.

Chapter 2

The Extent of Wholesale Inventory Record Inaccuracy Is Not Being Reported

Inventory effectiveness indicators used by the Army are misleading and do not accurately reflect the extent of inventory record inaccuracies. The principal reasons are (1) inappropriate physical inventory adjustment procedures and practices which result in underreporting inventory adjustments and (2) computer processing problems which result in overstatements of average inventory balances and erroneous inventory adjustments.

The statistics reported by the Army to DOD on the Inventory Control Effectiveness report and to Army headquarters on its Report of Physical Inventory showed that inventory accuracy goals are being achieved. However, the reported inventory adjustments are significantly understated because hundreds of millions of dollars of inventory adjustments are treated as accounting reversals and accounting errors and are not required to be reported as adjustments or used in determining the inventory adjustment rate. Also, the record accuracy rate is significantly overstated because DOD and the Army exclude any inventory variance of $800 or less from their computations. Furthermore, the causes of the inventory variances are not being effectively researched to identify the systemic problem areas. Additionally, we found inventory accuracy to be a major area of vulnerability even though TACOM had reported it as a low risk area in its annual assessment of internal controls.

Reported Inventory Accuracy Is Misleading

On an Army-wide basis during fiscal year 1986, the Army reported physical inventory adjustments totaling $413.5 million and a gross adjustment rate of 1.87 percent as compared to the Army's goal of 6 percent or less. Also, its reported record accuracy rate was 89.6 percent as compared to its goal of 90 percent or better. However, these statistics are misleading and do not reflect the extent of inventory inaccuracies as demonstrated by our review at TACOM.

Physical inventory adjustments at TACOM are significantly understated because inventory variances are resolved by reversing previous gain or loss transactions, rather than being reported as inventory adjustments. In fiscal year 1986, TACOM reported physical inventory adjustments totaling $24 million and a gross adjustment rate of zero. However, its adjustments actually totaled about $390 million which consisted of

reversals of $37 million, accounting errors of $329 million,[1] and adjustments of $24 million. TACOM adjusted its accountable records to reflect the $390 million of adjustments, accounting errors, and reversals. However, for reporting purposes, it does not consider reversals and accounting errors as inventory adjustments.

According to the Army inventory management policy for computing the gross adjustment rate, physical inventory adjustments can be offset by reversing erroneous transactions as long as the previous transaction is not more than 1 year old and a physical inventory has not been performed in the interim. We found that TACOM is not adhering to this policy. It is permitting reversals of transactions that occurred months and even years prior to the last inventory.

TACOM's reported gross adjustment rate of zero was based on $24 million of reported inventory adjustments offset by $37 million of reversals. This resulted in a negative $13 million which equals a zero adjustment rate. The gross adjustment rate also excluded $329 million of accounting errors. If TACOM had considered all of its reversals, accounting errors, and adjustments, it would have reported an adjustment rate of about 6.6 percent.

After discussing these matters with the AMC Chief of the Inventory Control Effectiveness team, the AMC Chief agreed that TACOM was not following DOD's policy on some of its reversals. They plan to issue a policy statement emphasizing that reversals should not be made to transactions that occurred before the last inventory.

Not only does the use of the reversal method result in understating the gross adjustment rate, it also results in overstatement of record accuracy. This is because under current reporting procedures, these types of transactions are not considered as inventory adjustments, and therefore, are not included in the record accuracy computation. Furthermore, the use of the improper reversals masks the inventory management problems by making it appear that inventory adjustments are minimal.

During fiscal year 1986, TACOM reported that inventory adjustments of $24 million was based on inventories of 24,159 items, and that the inventory records for 13,724 of these items required correction. This

[1] As interpretated by TACOM, the major difference between a reversal and an accounting error is the age of the transaction being reversed. Normally if the transaction is less than 1 year old, the adjustment is classified as a reversal and if over a year it is classified as an accounting error.

represents an initial record accuracy rate of 43.2 percent. Under current reporting procedures, adjustments under $800 are excluded from the computation of record accuracy. By following this procedure, TACOM reported an accuracy rate of 91 percent.

As discussed below, in certain cases, inventory adjustments were not based on a physical inventory, and in other cases where physical inventories were performed, the variances were not reflected as inventory adjustments.

Examples of Improper Inventory Adjustments

We selected 15 inventory variances valued at $20,000 or more that were processed by TACOM in October 1986. Eight of these were improperly resolved by reversing transactions that occurred before the last inventory date. For example, an October 1986 physical inventory at New Cumberland revealed a shortage of 11 axle assemblies (stock number 2520-01-085-6982) with a unit price of $11,066. This shortage was resolved by partially reversing a June 20, 1980, gain of 25 axles rather than making an inventory adjustment. TACOM's accountable records were adjusted to bring them into agreement with the custodial records, and the transaction was classified as an accounting error.

As shown in table 2.1, the eight improper inventory reversals were made against transactions that occurred before the recorded date of the last inventory.

Table 2.1: Reversal Transactions and Dates of Latest Inventory

Item	Date of last inventory	Date of transaction reversed	Effect on inventory gain or (loss)
Axle assembly	10–07–86	06–20–80	$(121,726)
Track shoe	09–15–86	07–24–81	(100,350)
Brake shoe	10–21–86	12–01–83	(255,675)
Dust boot parts kit	09–26–86	09–16–84	(20,850)
Shaft assembly	08–05–86	06–25–85	27,604
Oil seal retainer	09–16–86	07–02–85	31,330
Engine with container	10–03–86	08–29–85	63,910
Elevator control	09–26–86	03–11–86	24,730
Total			**$646,175**

We also reviewed 16 adjustments that resulted from TACOM's attempt to match the accountable records with the custodial records. Eleven of

these adjustments were resolved by making physical inventory adjustments, totaling $477,862, even though physical inventories had not been taken. In one case, comparison of the two records showed a difference of four cylinder assemblies (stock number 2530-00-999-4772) with a unit price of $9,792. Rather than verify the loss by taking a physical inventory, TACOM processed a physical inventory adjustment of $39,168 for the four cylinders to bring the accountable and custodial records into agreement. The correct way to handle the variances would have been to take a physical inventory to validate the variances and then use the results of the inventory for making an inventory adjustment. The remaining five variances were resolved by improperly reversing earlier transactions.

Impact of Computer Processing Problems on Inventory Accuracy and Reporting

Computer processing problems have resulted in improper inventory adjustments and overstatements of the average inventory value used to compute the inventory adjustment rate. In addition, the dates of the latest inventory are not always recorded, and without accurate inventory dates, inappropriate decisions can be made on making reversals and scheduling when another inventory should be taken. The Army recognizes its computer processing problems and has initiated corrective actions.

Attempts to Reconcile Accountable and Custodial Records Have Not Been Successful

The Army has not corrected computer processing problems which affect the reconciliation of the accountable records maintained by the ICP with the custodial records maintained by the depot. As a result, TACOM continues to make improper inventory adjustments and depot stocks have been unavailable for issue for days at a time.

Army inventory procedures require the quarterly comparison of accountable records with custodial records to determine the accuracy of the quantity of stock on hand. The comparisons continue to generate incorrect inventory data which decreases supply performance, and require many hours to correct and reestablish the inventory records. According to Army officials, the problems experienced in trying to compare these records are due primarily to numerous computer system changes which have been implemented over the years without being properly tested.

Excerpts from TACOM's report on the September 1985 quarterly comparison indicate the extent of the problem:

- The attempted reconciliation was considered a "disaster."
- The numerous failed reconciliations over the years have all had the same result: "chaotic" data bases resulting in drastic drops in supply performance.
- At four depots, 43,000 items were not available for issue for up to 11 days while the inventory records were being restored.
- Inventory balances for 16,000 items with inventory variances of less than $800 were improperly adjusted.

Incorrect Inventory Values Reported

TACOM's reported quarterly gross adjustment rate has been based on inflated inventory values since the third quarter of fiscal year 1986. The gross adjustment rate is based on the average inventory balance for the preceding 12 months; therefore, inaccurate inventory balances will influence the gross adjustment rate until the inaccurate balances are purged from the data base.

Monthly inventory reports for the year ended February 1987 showed that, with the exception of the April and May 1986 reports, the value of items on hand ranged from $4 billion to $4.5 billion. For these 2 months, inventory balances of $8.9 billion and $13.9 billion were reported. After we brought this matter to the attention of TACOM inventory personnel, they determined that the reported inventory values have been overstated since April 1986 and continue to influence the gross adjustment rate. According to TACOM inventory managers, computer programmers have not been able to identify the cause of these errors.

Inventory Dates Not Recorded

The Army's computerized inventory system does not always record the date of the last inventory. Army regulations require that classified, pilferable, and sensitive items be inventoried at least annually and all other items be inventoried at least once every 3 years. However, if the date of the last inventory is not known, the Army cannot determine what items need to be inventoried or when the inventories should be done. In addition, the date of the last inventory is needed to determine the cutoff dates for making reversals of inventory variances.

TACOM inventory officials recognize the problem, but told us that they have been unable to determine why the inventory dates are not always being recorded in the computer system.

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Army's Proposal for Developing a New Inventory System

As a result of longstanding criticism of its computerized inventory processing system, the Army has initiated action for redesign of its system. In July 1985, the AMC tasked its computer programming agency—the Automated Logistics Management Systems Activity (ALMSA)—to develop a physical inventory reconciliation system that would link the ICPs' Commodity Command Standard System, the depots' standard depot system, and AMC's management information system. In developing the new system, ALMSA was directed to consider a system that would simultaneously update both the ICPs' and depots' inventory records.

In March 1986, AMC submitted a concept paper on inventory modernization for review and comment by Army inventory managers. The objective was to simplify the inventory process by having only one inventory accountable record with both the depot and the ICP having access to it. Under this system, the depot would count the material and compare the count to the accountable record using a remote terminal. The accountable record would automatically be reconciled to the physical count, and if there is an inventory variance, the depot would adjust the accountable record and report a cause code that would identify the reason for the variance. As of May 1987, system redesign had not progressed beyond the concept stage due to the lack of funding. AMC plans to contract for a functional description and economic analysis of the new system. We were told that because the new system will require major changes in computer hardware, the system will probably not be operational until about 1992.

Ineffective Quality Control

As part of its inventory management system, TACOM requires periodic quality control reviews of transactions (i.e., inventory adjustments and receipt postings) affecting inventory accuracy. Data developed during these reviews are used to brief management on areas needing corrective action. However, many of the required reviews are not being performed or when they were performed, corrective actions were not being developed or implemented.

Quality control reviews were not being made for many of the major inventory adjustments to determine the validity of the adjustments. During fiscal year 1986, TACOM's computer system rejected 22 percent of the inventory adjustments submitted for processing on the basis that the adjustments were not reasonable, that is, the amount of the adjustment was greater than the inventory balance. In these cases, additional research is performed to determine the problem. However, reviews were not made for the other 78 percent of the adjustments that were accepted

without question. In view of the previously discussed improper inventory adjustments, we believe that inventory adjustment transactions need to be reviewed to ensure that they are accurate and valid.

TACOM's quality control reviews to determine whether item receipts are being posted to the custodial and accountable records within the prescribed time frame (1 day) have consistently shown that the time frame is not being met. Although these problems have been reported to management on numerous occasions, the number of unprocessed receipts remained at high levels throughout the year ending February 1987. As of the end of January 1987, TACOM had a backlog of over 3,800 unidentified material receipts. Some of the material had not been identified for over 7 years. The effect of not taking prompt action to identify and post material receipts is illustrated by the following example:

Twenty-five tube assemblies for the M1 tank engine were not posted to TACOM's accountable records when the items were received by the depot in October 1985 because the federal stock number was not identified. However, the part number and contract number were shown on the shipping documents. On October 4, 1985, the depot requested that TACOM research the item part number and identify the appropriate federal stock number. The items were finally posted to the accountable records on May 7, 1987. During the 19-month delay, the tube assemblies were in short supply and three high priority requisitions were outstanding for the item.

Causative Research Not Identifying Causes

Causative research as it pertains to inventory management tries to identify weaknesses in inventory control systems so that corrective actions can be taken. Army regulations require the ICPs and depots to perform causative research when an inventory variance exceeds certain limits. The reasons for the variances are to be categorized by error type and reported to higher command management. Tracking the types of errors over a period of time allows management to identify systemic problems and develop corrective actions.

At TACOM and New Cumberland causative research is not being done as required. Both consider causative research completed when the variance is reconciled and, both seldom assign cause codes or track causes to identify systemic problems. As a result, corrective actions to address the systemic problems are not being developed.

Causative Research at TACOM

During the first quarter of fiscal year 1987, TACOM reported 1,120 major inventory variances (variances of $800 or more). Of this total, only 25 related to physical inventories with the remainder related to attempted record matches, warehouse denials, and so forth. For the 25 related to inventories, TACOM identified receipt posting and material issue problems as the general cause of the variances in 13 cases. The causes for the other 12 variances could not be identified.

Causative Research at New Cumberland

The New Cumberland Army Depot uses the causative research process to try to reconcile a major inventory variance, but not to determine what caused the variance.

The depot prepares a monthly report of all cases researched and resolved as part of the causative research process. During fiscal year 1986, the depot reported that it resolved the inventory variances for 82 of the 114 TACOM requests for causative research. However, the depot considers resolved to mean that it was able to reconcile the inventory variance not to identify the reason for the variance. In actuality, the depot identified the causes for the inventory variance for only 16 cases examined. The reasons for the remaining unresolved variances were not determined by the depot.

Even in those cases where the reasons were specified, they were often inconclusive and incomplete. The following example illustrates what the depot considers a resolved variance. On January 29, 1986, the depot reported to TACOM that causative research showed that the loss of two support assemblies (valued at $15,730) was due to an erroneous gain of four assemblies on April 15, 1985. In explaining the April 13, 1985, transaction, the depot explained that the gain was partially due to an erroneous loss of three assemblies on August 18, 1984. What was overlooked was the fact that physical inventories had been performed to validate the existence of the on-hand items on two separate occasions.

Assessment of Internal Controls

Internal controls are an essential element of effective inventory management. When properly implemented, internal controls provide reasonable assurance that

- property, funds, and assets are safeguarded;
- obligations and costs comply with applicable laws; and
- operational revenues and expenditures are properly recorded and accounted for.

Agency heads are required to evaluate their internal controls and the vulnerability of the programs they manage to determine their susceptibility to loss or unauthorized use of resources, errors in reports and information, and so forth. Assessment of internal controls in the supply accountability area was not performed at the New Cumberland Army Depot. The TACOM's most recent annual statement on internal controls—September 1986—was based on self-assessments made by the chiefs of the various divisions. These assessments for all divisions rated program vulnerability in the inventory accountability area as a low risk area. We, on the other hand, found inventory accuracy at the depot to be a major area of vulnerability. The specific areas of supply accountability that exhibit vulnerability include accuracy of inventory records, research to identify the causes of the inaccuracies, and physical control over the inventory items.

Chapter 3

Our Assessment of Wholesale Inventory Accuracy

Because most of the items inventoried by the depot are selected on a nonstatistical basis or on a basis of a known or indicated problem, the inventory results do not represent the universe of items stored at the depot.

To obtain an accurate measure of TACOM's inventory effectiveness, we selected a stratified statistical sample of 330 TACOM-managed items at New Cumberland Army Depot and did a physical inventory of these items. The results of our inventory, when projected to the universe of TACOM items at the depot, indicate that the recorded inventory balances for 56 percent of the items did not agree with the physical counts. These inventory inaccuracies represent a dollar variance ranging from 0.6 percent to almost 40 percent, and a unit variance rate ranging from 0.6 percent to 36 percent depending on the item's unit price.

Unscheduled Inventories Detract From Obtaining a Representative View of Inventory Accuracy

Most of New Cumberland's depot inventory efforts are devoted to unscheduled inventories which are necessitated by discrepancies between depot custodial records and ICP accountable records. As a result, the time and resources available to perform scheduled inventories of other items is minimized. Items selected for scheduled inventories are generally controlled items and those determined by the demands for an item, with the more active items being selected first. The depot considers an item active if three or more demands are received for the item during the year.

Table 3.1 shows that the total number of inventories performed has decreased. Furthermore, New Cumberland's scheduled inventories, as a percent of total inventories completed, have decreased and unscheduled inventories as a percent of total inventories completed have increased significantly over the past several years. The fact that the depot's inventory efforts are spent primarily in performing unscheduled inventories is, in itself, an indication of inventory inaccuracy problems. Furthermore, not performing scheduled inventories contributes to TACOM not having a representative understanding of its inventory accuracy.

Table 3.1: Inventories Completed at New Cumberland (scheduled and unscheduled) **1984-86**

		Scheduled		Unscheduled	
Fiscal year	Inventories completed	Number	Percent of total	Number	Percent of total
1984	113,096	45,462	40.2	67,634	59.8
1985	79,579	24,658	31.0	54,921	69.0
1986	44,579	3,764	8.4	40,815	91.6

Record Accuracy Problems Affect All Dollar Stratas

TACOM computes two record accuracy rates for measuring its inventory management effectiveness. The first is initial record accuracy which compares the number of records not requiring any adjustment to the total number of item records examined.

The second indicator is the adjusted record accuracy indicator which measures the number of records not requiring an adjustment of more than $800 to the total number of item records examined.

Initial Record Accuracy

For fiscal year 1986, TACOM recorded an initial record accuracy rate of 30 percent for New Cumberland. In other words, 70 percent of the records examined required some adjustment. The poor accuracy rate reflects that 91 percent of the inventories were unscheduled and thus the result of a known or indicated problem.

Our sample results showed a higher initial record accuracy rate. For the 330 items inventoried, the on-hand balance did not agree with the recorded balance for 183, or about 56 percent of the items—an initial record accuracy rate of 44 percent. (See table 3.2.) It would be expected that our sample results would show a higher record accuracy rate than the TACOM computed rate, because our sample represents all TACOM items at the depot, whereas, TACOM's computed initial accuracy rate was based on problem items.

Table 3.2: Initial Record Accuracy Rate for Sample Line Items by Unit Price

Unit price	Sample items	Items with		Total gains/ losses	Percent of accurate records
		Gains	Losses		
$0 - $100	225	59	74	133	40.9
$100.01 - $500	43	14	9	23	46.5
$500.1 - $1,000	18	6	3	9	50.0
$1,000.1 - $10,000	19	3	0	3	84.2
$10,000.1 - $50,000	10	2	2	4	60.0
Over $50,000	15	4	7	11	26.7
Total	**330**	**88**	**95**	**183**	**44.5**

Table 3.3 and appendix III show that when the sample results are projected to the universe of TACOM-managed items stored at the depot, the inventory records for 13,391 of the 23,803 line items are in error.

Table 3.3: Projected Record Inaccuracy for TACOM-Managed Line Items at New Cumberland

Unit price	Universe of items	Items with Gains	Items with Losses	Total gains/ losses	Percent of accurate records
$0 - $100	18,737	4,913	6,162	11,075	40.9
$100.01 - $500	3,185	1,037	667	1,704	46.5
$500.1 - $1,000	820	273	137	410	50.0
$1,000.1 - $10,000	943	149	0	149	84.2
$10,000.1 - $50,000	103	21	21	42	59.2
Over $50,000	15	4	7	11	26.7
Total	**23,803**	**6,397**	**6,994**	**13,391**	**43.7**

Adjusted Record Accuracy

For fiscal year 1986, TACOM reported an adjusted accuracy rate of 90.9 percent. In computing this rate, the Army, in accordance with DOD policy, considers all adjustments of $800 or less as minor adjustments, and for record accuracy purposes, counts them as accurate records.

We believe the adjusted record accuracy rate is incomplete as a basis for gauging inventory management effectiveness because it excludes all inaccurate records where the variance is $800 or less. Some lesser cost items are just as important in maintaining operationally ready equipment as the more expensive items.

Dollar Variance Indicates Problems With High-Dollar Items

The Army compares the value of inventory adjustments for the items inventoried to the average value of the inventory on-hand. Using this measurement technique, TACOM reported a zero gross adjustment rate as compared to the Army's goal of 6 percent. However, as discussed earlier, the gross adjustment rate is misleading for two reasons. First, it is based on an inflated average inventory balance rather than the value of items inventoried. Secondly, the adjustments (gains and losses) do not include accounting errors or accounting reversals. In TACOM's case, these amounted to almost $366 million in fiscal year 1986. Therefore, TACOM's reported rate does not reflect the magnitude of dollar inaccuracies existing in its inventory management practices.

The Army also computes a dollar variance based on the ratio of the value of inventory adjustments to the value of items inventoried. For fiscal year 1986, TACOM reported $4.5 million of inventory adjustments for its items at New Cumberland. These inventoried items were valued at $90 million; thus, the dollar variance would be 5 percent. However,

the reported inventory adjustments did not include $28 million of accounting reversals and accounting errors. If they had been included, the dollar variance would have been about 36 percent.

Our stratified sample showed a dollar variance for records examined that ranged from 0.6 percent to about 40 percent with higher priced items having the larger percent of variance. When the sample results are projected to the universe of items, the dollar variance ranged from about $550,000 to about $11.7 million and generally increased as the unit price increased. (See table 3.4 and app. III.) This is in contrast to record accuracy variances which were fairly well distributed among the various unit price stratas.

Table 3.4: Dollar Variance by Unit Price for TACOM-Managed Items at New Cumberland

Dollars in millions

Unit prices	Recorded inventory value	Percent of dollar variance in sample	Projected dollar variance[b]
$0 - $100	$146.5	2.9	$4.22
$100.01 - $500	103.2	7.0	7.24
$500.01 - $1,000	40.9	14.8	6.06
$1,000.01 - $10,000	91.1	0.6	0.55
$10,000.01 - $50,000	46.3	25.2	11.68
Over $50,000[a]	25.0	39.9	9.98
Total	**$453.0**		

[a]All items with a unit price of $50,000 or more were reviewed. Therefore, the values shown are actual rather than projected.

[b]The projected dollar variance for each price strata should be considered a separate entity. The projected variances should not be summed as the total variance for the universe of items.

Unit Variance Shows Results Similar to Dollar Variance

Unit variance compares the difference between the recorded quantity for the line items and the quantity determined by the physical inventory to the total recorded quantity. Similar to the dollar variance measure, it can give management an indication of the degree of inventory accuracy.

The Army is not required to and does not report unit variance; therefore, we could not compare the results of our computed unit variance (quantity). The other services do use unit variance as another way to gauge inventory effectiveness. We also support the use of unit variance, as it provides management an added perspective on inventory management effectiveness.

The results of our sample when projected to the universe of TACOM-managed items at New Cumberland showed a unit variance that ranged from 0.6 percent to 36 percent with the higher priced items having the larger percent of variance. (See table 3.5 and app. III.)

Table 3.5: Unit Variance by Price for TACOM-Managed Items at New Cumberland

Unit price	Recorded quantity	Percent of unit variance in sample	Projected quantity variance[b]
$0 - $100	20,570,668	5.0	1,029,506
$100.01 - $500	561,704	7.3	41,030
$500.01 - $1,000	60,511	15.9	9,602
$1,000.01 - $10,000	38,497	0.6	232
$10,000.01 - $50,000	3,109	28.9	899
Over $50,000[a]	239	36.0	86
Total	**21,234,728**		

[a]All items with a unit price of $50,000 or more were reviewed. Therefore, the quantity variance is actual rather than projected.

[b]The projected quantity variance for each price strata should be considered a separate entity and should not be summed as the total variance for the universe of items.

What is evident from analyzing the various indicators is that no one indicator is the best measure of inventory management effectiveness. The indicators must be analyzed collectively, otherwise, management could be misled as to where to emphasize improved inventory management. For example, record accuracy indicates problems across the board; whereas, dollar and unit variance indicates problems with the higher dollar value items. Furthermore, as in our sample, a relatively few items may have a disproportionate effect on the unit and dollar variance rate. The key is for management to have a representative view of the inventory through the use of various indicators, so that it can better assess the effectiveness of its inventory management efforts and determine where it should apply corrective action.

Chapter 4

Inventory Accuracy and Causative Research Need to Be Improved at the Retail Level

The Army has many of the same inventory management problems at the retail level as it does at the wholesale level. Also, as with the wholesale level, little or no causative research is done to identify the basic causes of inaccurate inventory records.

Inventory Records and Reports Are Often Inaccurate and Incomplete

Army regulations define inventory accuracy as the ratio of total number of lines inventoried without major adjustment to the total number of lines inventoried. At the retail level, a major adjustment is one where the inventory variance is $25[1] or more. The Army's inventory accuracy goal is 90 percent. Our review at the 4th Infantry Division and the Installation Supply Activity at Fort Carson, Colorado; the 25th Infantry Division in Hawaii; and the 3d Armored Division in Germany, showed that in most instances the supply activities did not meet the Army's goal.

4th Infantry Division

A September 1986 wall-to-wall inventory by the 4th Infantry Division of 7,836 items valued at more than $5 million, showed an inventory accuracy rate of 81.7 percent and inventory adjustments of $2.6 million ($1.7 million of gains and $0.9 million of losses). The computed inventory accuracy rate was overstated because not all items found[2] during the inventory (about $941,000) were considered in the computation. According to unit officials, found items for which the unit does not have an inventory card are not considered in computing record accuracy. Information which would allow us to determine the number of inventory records represented by the found items was not available. Therefore, we could not determine what the record accuracy rate should have been.

Inaccurate inventory records were also a contributing factor to the amount of excess materiel at the 4th Infantry Division. About $350,000 of the inventory gains and about $242,000 of the items found during the inventory were declared excess.

[1] Army regulation 710-2, dated November 24, 1986, changed the value to $50. The records we reviewed were subject to the $25 criterion.

[2] Items classified as found are items not on the units' inventory records, or items at locations not indicated on the records. These items are not included in the inventory gains.

Fort Carson Installation Supply Activity

Annual wall-to-wall inventories are done for items managed by the installation supply activity at Fort Carson. The installation supply activity reported inventory accuracy rates of 95.8, 94.1, and 94.3 percent for fiscal years 1984 through 1986.

These reported rates would seem to indicate that the installation supply activity's inventory records are accurate. However, our analysis showed that the rates were overstated because many inventory variances are excluded from the accuracy rate computation. Army regulations specify that all inventory gains and losses over $25 are major discrepancies and should be included in the computation. However, the Standard Army Intermediate Level Supply (SAILS) system which is used to compute the accuracy rate at the installation level is programmed to consider only inventory variances of $200 or more as a major discrepancy. Therefore, variances between $25 and $200 are not included in the computation. We could not determine the number of inventory variances that fell within this range because the data needed to make this determination was not available. Consequently, the extent of the accuracy rate overstatement is not known. Because SAILS is used Army-wide for installation supply activities, the higher dollar threshold was used to develop reports of inventory accuracy by other installation supply activities.

In addition, we found that Fort Carson does not make inventory adjustments for inventory losses of $25 or more until causative research has been completed. This is in conflict with Army regulations which require that physical inventory adjustments be made promptly after completing the physical inventory with causative research[1] to be done later. Because of time constraints, causative research was not completed for 530 variances identified during the 1986 annual inventory and about 800 inventory variances during the 1985 inventory. These variances were disregarded in determining the record accuracy rate. Equally important is the fact that the inventory records were out of balance for the entire period and the supply activity managed the inventory based on the inaccurate records.

The installation's accuracy rate was also overstated because other inventory variances were not considered in the inventory accuracy rate computation. To illustrate, variances were ignored for such reasons as

- a prior year's gain was reversed rather than posting an inventory loss for the current year,

[1]At the retail level, causative research is required for all inventory variances of $500 or more.

- inventory losses were assumed to be invalid and offset by issues that had not been posted to the records, and
- materiel not located during the inventory was located at a later date.

We could not determine the extent that the above matters inflated the units' reported inventory accuracy rates.

3d Armored Division

Since November 1985 the 3d Armored Division completed a total of 15 semiannual inventories of its repair parts at the Division's 6 Direct Support Units.

Table 4.1 shows the number of inventories done at each location, the range of reported inventory accuracy rates, and the number of times the inventory accuracy rate exceeded the Army's goal of 90 percent.

Table 4.1: Inventories Done and Range of Accuracy Rates

Location	Number of inventories	Range of reported inventory accuracy rates (Percent) High	Low	Number of times rate exceeded the Army's goal
Primary Supply Activity	2	72	68	0
1st Forward Support Battalion	3	92	67	1
2d Forward Support Battalion	2	73	70	0
3d Forward Support Battalion	2	77	72	0
Missile	3	87	82	0
Aviation	3	83	77	0
Total	**15**			**1**

Our review showed that the 3d Armored Division's reported inventory accuracy rates were overstated because the accuracy rates did not take into consideration the number of items found during the course of the inventory. For example, during a June 1986 inventory at the Division's primary support activity, 1,229 line items were found for which stock records had not been established.

In addition, the Division's six Direct Support Units experienced significant inventory adjustments. These adjustments totaled about $39 million in 1986, and most of them related to the Division's primary supply activity. Table 4.2 shows the inventory adjustments (gains and losses)

for each supply activity and whether the adjustments related to the semiannual or other special[1] inventories.

Table 4.2: Inventory Adjustments During 1986 for the Six Direct Support Units

Dollars in thousands

	Semiannual inventories		Special inventories		Total	
Location	Gains	Losses	Gains	Losses	Gains	Losses
Primary Supply Activity	$ 510	$6,898	$11,128	$7,892	$21,638	$14,790
1st Forward Support Battalion	144	34	0	0	144	34
2d Forward Support Battalion	142	62	0	0	142	62
3d Forward Support Battalion	58	66	0	0	58	66
Missile	703	577	0	0	703	577
Aviation	436	331	0	0	436	331
Total	$11,993	$7,968	$11,128	$7,892	$23,121	$15,860

Causative Research Is Incomplete and Not Used to Identify Underlying Causes

Army Regulation 710-2 provides that causative research will be done for all inventory variances involving sensitive items and other inventory variances over $500. Causative research is considered complete when the cause of the inventory imbalance has been determined, or when no conclusive explanation for the variance can be determined after researching all transactions back to the previous inventory.

The retail supply activities we reviewed had done little or no causative research and the causative research that was being done did not result in identifying the specific reasons for the variances. This lack of specificity effectively limited development of corrective actions.

4th Infantry Division

The 4th Infantry Division's plan is to do causative research on all inventory adjustments over $500. However, a considerable backlog of variances to be researched has developed since the last inventory in September 1986. As of April 1987, causative research had not been performed for 542 inventory variances that exceeded the $500 threshold.

When the causative research is completed, a brief description of the results is included in the inventory adjustment report. However, results are normally stated in general terms and do not identify the specific reasons for the inventory variance. Consequently, corrective actions to

[1]Special inventories are inventories performed for various reasons such as material release denials, or at the request of the item manager to insure accuracy of the stock records.

resolve the problem are difficult to develop. A typical reason cited for a variance is, "Shortage due to normal issue and receipt processing."

The 4th Infantry Division does not track its causative research results to identify trends. As a result, the Division does not know where corrective efforts should be concentrated.

Fort Carson Installation Supply Activity

The installation supply activity's procedure provides for researching all inventory variances of $25 or more. However, very few of the inventory variances from the 1986 inventory were researched.

When the inventory variance is a gain, the inventory balance is adjusted. However, when the inventory variance is a loss, the inventory balance is not adjusted until causative research is completed. The installation decided that it could not complete the causative research for the 530 inventory losses identified in the 1986 inventory before it was time to take the next inventory.

For the most part, the causative research that is performed is for the purpose of reconciling the inventory variance rather than determining the cause of the variance. The installation does not track the types of recurring causes, and cannot determine what actions need to be taken to solve the inventory variance problems.

25th Infantry Division

The 25th Infantry Division is not performing causative research for all inventory adjustments over $500. For example, the 1986 inventory at the Division's primary supply activity resulted in 563 variances over $500 (367 gains and 196 losses). Causative research was performed for only 2 percent of the gains and 20 percent of the losses.

The causative research that was performed was insufficient to identify the specific reasons for the gains and losses. Research consisted mainly of examining the monthly transaction register for obvious errors and did not consider other sources such as receipts and reports of discrepant shipments. For example, the Division concluded that the loss of 70 automotive batteries was due to "numerous condition code changes." Condition code changes do not result in losses.

3d Armored Division

At the 3d Armored Division, causative research was performed on 50 percent of the 750 inventory variances resulting from the June 1986

inventory at the Division's primary support activity. According to the accountable officer, there are insufficient personnel to perform the needed research.

The causative research that was performed generally lacked specificity in identifying the underlying causes for the inventory gains or losses. For example, the reason given for many of the variances was failure to post receipts. However, the systemic reasons that caused the receipts not to be posted were not identified. Consequently, corrective actions to solve the problem could not be developed.

Chapter 5

Improved Physical Security Is Needed to Safeguard Inventory Supplies, Including Sensitive Munitions

Sound physical security is essential to protect inventory items from loss due to theft. Our review disclosed numerous instances where physical security was inadequate to afford proper protection. The physical security deficiencies applied not only to repair parts, but also to sensitive missiles which could be targets for theft by terrorists and other dissident groups. The range of security deficiencies included inadequate and improper storage facilities, inoperative detection devices, poorly equipped and trained guards, and poor accountability for and control over sensitive items. Many of these type deficiencies are longstanding problems and have been the subject of various DOD studies and reports.

The following types of security deficiencies were noted during our visits to the 25th Infantry Division in Hawaii and at eight battalions in four divisions in Germany.

25th Infantry Division

The 25th Infantry Division's storage facilities did not meet many of the Army's minimum physical security standards. Our inspection of the storage facilities identified numerous security deficiencies such as:

- holes in the exterior walls of the facility that would allow easy access,
- improperly secured doors and doors that did not meet minimum structural standards;
- ground floor windows that were not barred, grilled, or covered with chain link material; and
- a gate to the bulk storage yard that could be entered easily because it was about 3 feet above the ground at one end.

In addition, access control procedures were not being used at certain storage locations and we found no evidence to indicate that access to these areas was restricted. Also, controls over pilferable-coded repair parts at certain locations were inadequate. At one location, 48 of 89 pilferable-coded repair parts were stored in an open warehouse while many non-controlled repair parts were stored in a protected area.

Physical security inspections, required by Army regulations, should have disclosed these deficiencies. However, only one of the four division storage facilities had been inspected, and the inspection report, dated October 27, 1986, did not cite many of the deficiencies we found. According to the Physical Security Chief, all storage facilities were not inspected because the Division had not identified all locations on its list of mission essential and vulnerable areas.

At our request, a physical security specialist inspected the four storage facilities. A February 6, 1987, report which documented the results of these inspections pointed out many of the same type physical security deficiencies that we identified during our inspections.

3d Armored Division

The Division's storage facilities had numerous physical security weaknesses such as:

- Highly pilferable parts such as tires, batteries, and electronic parts (valued at $175,000) were stored in tents that had holes in their side walls that offered easy access.
- The main warehouse which contains repair parts valued at about $15 million was easily accessible. During the day, access to the storage bins and compartments was not restricted. After hours, the warehouse could be entered through a poorly secured door.
- Control of keys to warehouse doors, storage cages, and vans was inadequate. Despite a 1986 inspection which also noted this problem, a key custodian had not been designated, the key register was out of date, and there were no indications that the keys were being inventoried.

Accountability and Control Over Sensitive Munitions

Army regulations prescribe that sensitive munitions be stored in earth covered bunkers with steel doors and that the facilities be protected by intrusion detection systems and guards. Deviations from prescribed security methods can be compensated for by increased surveillance. At the locations visited where security deficiencies were observed, compensatory measures either were not in place or were not effective. The regulations also require that the sensitive munitions be inventoried monthly and that the items be accounted for by serial number.

Our review at eight battalions in four divisions in Europe disclosed serious physical security and serial number control problems. We performed a physical inventory of 13 sensitive munitions types and compared the inventory results to the amounts shown on the accountable records. In total, we inventoried 29,615 individual items of which 5,027 were required to be controlled by serial number. We also reviewed physical security measures at nine ammunition storage locations which support the eight battalions.

Sound Inventory Control Procedures Over Sensitive Missiles Not Followed

The battalions had the proper quantities of munitions; however, serial numbers for 807 of the 5,027 missiles (about 16 percent) which are required to be controlled by serial number did not agree with the serial numbers recorded on the units' property books.

We determined that about 20 percent of the 807 discrepancies could be attributed to administrative errors such as failing to post receipt of the missiles to the units' accountable records, or the units' incorrectly posted the serial numbers to their records. In the remaining 80 percent of the cases, we could not determine the reasons for the discrepancies and unit officials had not been able to determine the reasons at the time we completed our field work in April 1987.

The seriousness of what can happen when serial number control is lost can best be demonstrated by the following examples.

- In 1986, the U.S. Army Missile Command requested that 24 Stinger missiles in Europe be located so that they could be test fired. The missiles were identified by individual serial numbers. The request was sent on September 19, 1986, and the units were supposed to respond by October 27, 1986. However, it was not until August 1987, that all the missiles were located.
- In March 1986, a battalion lost a Chaparral training missile. The investigating report concluded that the unit had failed to maintain serial number accountability over its missiles and had routinely swapped missiles with other units for training exercises. In an effort to locate the missing Chaparral, the commander of the unit began calling all Chaparral battery commanders in the U.S. Army, Europe. The commander eventually located one unit which had acquired an extra missile and was willing to transfer it to the commander's unit. Although the serial number of the missing missile did not match with this missile, the commander stated that

> "It is still possible that it is ours because of the inexact manner in which the serial numbers were tracked in the past."

The investigating report agreed with the commander's assessment that the replacement missile be accepted.

Army regulations require that monthly inventories be performed for all serial numbered controlled items. If these requirements had been met, the serial number control problems could have been identified. We found, however, that at six of the eight locations visited, the required

serial number inventories had not been performed during the past 12 months. The other two had performed some but not all of the required inventories. Furthermore, in about 54 percent of the cases, there were no indications that inventories to determine the quantity of items on hand were being done.

A number of other problems with the accuracy and completeness of the property books and supporting documents were also noted. For example, supporting documents for 1,500 of the 5,027 missiles inventoried could not be located by the battalions. Supporting documents, such as hand receipts, are needed to show the receipt and transfer of missiles. In the absence of these documents, it is not possible to determine that the missiles on hand are the same missiles that were shipped to the unit.

In another case, a battalion lost its property book. The unit had 360 TOW and 108 Dragon missiles on hand. However, we could not verify the serial numbers or insure that the existing quantities were correct. The unit was attempting to reconstruct its property book, but was having difficulty doing so, due to the lack of necessary supporting documentation.

Security at Storage Sites Does Not Meet Requirements

Army security inspectors had previously rated physical security as "poor" at five of the nine ammunition storage sites we visited. Additionally, at one other site not inspected by Army security inspectors, we considered physical security to be "poor" based on Army inspection criteria. One of the more significant problems noted was the need for improvements to storage facilities. Four of the sites were storing missiles and other sensitive ammunition in structures that did not meet physical security requirements. For example:

- Stinger missiles were stored in lightweight corrugated metal sheds with the word "Stinger" stenciled on the side.
- Antitank rockets were being stored in similar type sheds, with doors that had to be propped shut because of broken locking mechanisms.
- Dragon and TOW missiles were stored in tractor trailers and on open concrete storage pads in plain view of persons outside the storage perimeter.
- Antitank rockets and hand grenades were stored in small, rusting, lightweight metal sheds.

Other security problems included poor communications and lighting, holes in some fences, gates which could be lifted off their hinges, inadequate inner and outer clear zones, and no designated response force. In addition, 78 percent of the storage structures did not have intrusion detection systems or the systems were not functioning properly.

Problems with civilian guards were also noted in Army inspection reports and during our visits to the storage locations. The more common problems were invalid or nonexistent background checks, failures to qualify in the proper handling of firearms, lax entry controls, inadequate numbers of guards, failure to man guard posts, and failure to check storage bunkers on time.

The following illustrates what we found during our visits to the various sites and what Army officials found during their inspections.

- At one location, the guard force was inside the guard shack instead of patrolling the area. This was the second occurrence of this type within a month.
- A later inspection found a guard absent from the guard post, and a note was affixed to the door which stated "Be back in 5 minutes." This same site was subsequently inspected by the V Corps Internal Review Office. Their inspection concluded that the guards were not properly equipped, the majority of them had not completed the required training, 14 guards did not have the required police background check, and some guards were allowed to work 24 to 36 hours continuously. Another inspection by Provost Marshal security inspectors found four of the six guards in the guard shack; two of whom were playing cards. The remaining two guards could not be found and could not be contacted by radio.

Recent reports have cited instances where munitions, like those we inventoried, have been diverted. According to Army officials, the military source and amount of diverted ammunition oftentimes cannot be determined, because accountability and security problems makes it difficult to identify the source of the ammunition when it is found.

Officials of the Divisions we visited said they planned corrective actions to address the accountability issues discussed in this report. The actions planned include rewriting operating procedures, issuing policy letters, and clarifying requirements pertaining to the accountability and control over sensitive munitions. In addition, several of the Divisions are having ammunition inspectors conduct ammunition management reviews to determine the adequacy of the security procedures.

The U.S. Army, Europe has long recognized the security problems it has because of poor physical facilities. In our 1982 report, DOD Has Serious Problems With Care and Maintenance of Conventional Ammunition (PLRD-82-27, Feb. 9, 1982), we pointed out that existing storage space in Europe was deteriorating and inadequate. In response to the report, U.S. Army, Europe developed a list of storage sites needing improvements, but at the same time recognized that the command had no major program to provide sufficient funding for the upgrade of older facilities or for annual recurring maintenance of both older and newer facilities. As a result, the backlog for upgrade continues to grow and all required annual maintenance is not being performed.

A June 1983 report by the DOD Office of Inspection General also identified insufficient and inadequate storage facilities for ammunition and explosives. The report pointed out that under Army policy, responsibility for identifying and funding needed physical security upgrades rests with the local commands and that it did not appear that physical security upgrades received as high a priority as other mission responsibilities. The report also stated that health, welfare, and troop morale projects were consistently afforded higher priority than physical security projects.

The Inspector General recommended that a separate budget appropriation line be established for physical security of ammunition and explosives. DOD agreed with the recommendation, but did not change its policy. However, the Army did not agree with it. The Army stated that major commands are given the resources which are then allocated to the installation to carry out the responsibilities assigned to them and that installation commanders should have the authority to make decisions based on established priorities and availability of resources.

The Inspector General responded to the Army's comments by stating that the "bottoms-up" approach has resulted in the non-uniform application of resources to upgrade physical security and to accomplish the needed upgrades, priorities and funding levels must be established on an Army-wide basis.

Chapter 6

Conclusions and Recommendations

Conclusions

Army and DOD management is not fully aware of the extent of inventory inaccuracies existing at the wholesale and retail levels. The reported statistics on inventory management effectiveness are misleading because the Army has broadly interpretated the intent of DOD's policy guidance. As a result, management decisions concerning what and how much to procure and what is needed to adequately support the forces are based on less than complete and accurate information. The primary indicators used by the Army for measuring effectiveness—record accuracy and gross adjustment rate—exclude hundreds of millions of dollars of inventory adjustments that the Army classifies as accounting reversals and accounting errors. By excluding these adjustments, the record accuracy rates are overstated and gross adjustment rates are understated. Furthermore, the Army does not know the extent of its inventory inaccuracies or what these inaccuracies represent in terms of dollar value or quantity of items.

Compounding the problem of not knowing the extent of inventory accuracy is the fact that the Army does not know what is causing the variances found. Causative research, which is intended to ultimately identify the systemic causes so that corrective actions can be developed, is either not being performed or being performed ineffectively. When done, the results of causative research are not being aggregated to identify systemic problem areas. In the absence of such information, the same problems will continue to occur and their underlying causes will remain unknown.

The Army needs to develop a better system to gauge the overall effectiveness of its inventory management process. One such method would be to apply statistical sampling. Using this technique, the Army could select a stratified random sample of items, either by ICP or depot, and perform a physical inventory of these items. This method would allow management to obtain a representative view of all of its inventory, and managers could then evaluate overall effectiveness using various indicators to identify those inventory management areas needing improvement. The sampling technique would further allow Army management to compare and evaluate the performance of its ICPs and depots.

Another factor that compounds the inventory accuracy problem is poor physical security at some facilities for safeguarding the inventory from theft and diversion. Poor physical security at some facilities is due, in part, to a situation which places the responsibility for setting priorities and allocating resources on the major commands. As such, facility

improvements at some installations must compete with other operational and quality of life requirements for limited resources, and funding for physical security upgrades often receives a lower priority.

Collectively, the problems of inaccurate inventories, unknown causes of the inaccuracies, and poor physical security all contribute to a situation where the Army is unnecessarily vulnerable to theft, diversion, or misappropriation of its inventory supplies. These management weaknesses should have been recognized and reported to higher organizational levels in the Army and reported as part of its internal controls program.

Finally, many of these same problems were previously reported by us and others over the past several years. Based on this review, it is apparent that promised actions to correct the problems have not been fully effective. In view of the problems discussed in this report, we believe it is time for the Army to revisit these prior recommendations and renew its commitment for correcting these problems.

Recommendations

We recommend that the Secretary of the Army direct the inventory managers to

- perform a physical inventory of all variances disclosed by comparing the accountable and custodial records, and use the results of the inventory as the basis for making inventory adjustments;
- report all variances between physical inventories and accountable records and use the reported variances in measuring inventory management effectiveness;
- develop an inventory methodology, such as statistical sampling, which will allow managers to obtain a representative and realistic view of its inventory management effectiveness based on indicators such as dollar and unit variance, as well as initial record accuracy; and
- reemphasize the need for effective causative research that identifies the causes for the inventory variances and tracks the causes over a period of time to identify systemic problem areas. An alternative to the current procedures would be to statistically sample the variances and do the necessary in-depth research to identify the causes of the variances.

We also recommend that the Secretary of the Army,

- as an alternative to the current process for allocating resources, establish a separate budget line for physical security of its inventories so that it can have better visibility of the progress toward making needed

upgrades of facilities, equipment, and personnel rather than leaving it up to the major commands and installation commanders to decide how the resources should be allocated;

- reexamine the previously planned corrective actions shown in appendix I and determine why these actions have either not been taken or why they have not resulted in improved inventory management; and
- report the internal control weaknesses discussed in this report, along with a corrective action plan, in the Army's next annual Financial Integrity Act statement.

Agency Comments and Our Evaluation

DOD agreed with four of our recommendations and partially agreed with the other two, and proposed a plan of action for implementing the intent of each recommendation. DOD partially agreed with our proposed recommendation in the draft report and stated that total turbulence in the inventory records should be measured and reported to management so that inventory management effectiveness can be assessed. However, DOD does not believe that all reversals should be eliminated because there are instances where record errors need to be corrected. DOD said that inventory adjustments, and not accounting errors and reversals, should be used to correct erroneous inventory adjustments that are more than 1 year old or adjustments that occurred prior to the last physical inventory. DOD also agreed that inventory variances that result from erroneous processing and affect the quantity balance on the accountable records must be recorded as record turbulence. We agree with DOD's comments and have modified our first recommendation to clearly focus on the need to identify the total turbulence in inventory records.

DOD advised that a study has been initiated, and is to be completed by December 1987, to assess the current reporting mechanism (Inventory Control Effectiveness Report) and to explore alternative performance measures, data sources, and reporting processes. DOD's proposed action will help ensure that total turbulence in the inventory records is measured.

DOD agreed with our second recommendation on the need for an inventory sampling methodology that would give management a representative and realistic view of its inventory management effectiveness. DOD reissued DOD Instruction 4140.35, dated June 30, 1987, that now requires a random sample inventory, in addition to regular inventories for problem items, to measure overall effectiveness of the inventory control process.

DOD agreed with our recommendation for more effective causative research. DOD stated that causative research, as currently being performed, does not provide benefits commensurate with the resource expenditures. DOD advised that it has initiated a study to recommend policy and procedural changes to improve the effectiveness and efficiency of causative research. As an interim measure, DOD will

- reemphasize the need for effective causative research,
- provide an updated multimedia presentation on how to conduct causative research, and
- prepare an automated system change proposal that will print a checklist to assist each researcher in documenting the findings on each causative research case.

DOD partially agreed with our recommendation for a separate budget line for physical security stating that it continues to believe that a centrally managed program is necessary. DOD noted that the Army has consolidated the bulk of its physical security resources into specific Program Development Increment Packages for security upgrades and enhancements. It further stated that the key is to ensure that funds programmed and budgeted for these packages are used for the specified purposes.

We agree that consolidating the resources into Program Development Increment Packages does increase the visibility of such resources to Army officials and does provide a basis for raising questions when the funds are diverted for other purposes. However, this process has been in effect since 1983 and the overall situation has not been remedied. If a separate budget line was established at the DOD level, the resources would be more visible to higher management level, and the tendency to divert the funds to other purposes might be reduced. Therefore, we continue to believe that our recommendation remains valid.

DOD agreed with our recommendation on the need to reexamine previously planned corrective actions. It stated that the Army will complete a review, by November 1, 1987, to ensure that corrective actions are proceeding in accordance with approved milestones.

DOD also agreed with our recommendation that the Army include internal control weaknesses, along with a corrective action plan, in its next Financial Integrity Act Statement.

Appendix I

Current Status and Our Evaluation of DOD's Actions on Our Recommendations in the November 1983 Report[1] on Inventory Accuracy

Recommendation	DOD Action	Current Status and our Evaluation
Recommendation 1: Adopt on a DOD-wide basis, the following actions taken by the Navy to improve physical inventory control and inventory record accuracy.		
(a) Recognize inventory record accuracy as a major concern and upgrade the command priority and emphasis given to physical inventory programs.	DOD concurred. The Office of the Secretary of Defense (OSD) issued a memorandum on July 12, 1983, that reemphasized to the DOD components the importance of increasing management attention to inventory control. In May 1986, DOD requested that the Army develop a DOD-wide physical inventory control training course.	Based on the results of our May 1986 briefing report to Sen. Pete Wilson and the results of this review, we do not believe the Army has given the proper command priority and emphasis to physical inventory programs.
(b) Require that merit pay objectives/performance evaluations of military and civilian personnel involved in functions affecting inventory record accuracy include a mandatory entry on inventory record accuracy and materiel accountability performance.	DOD concurred. OSD issued appropriate instructions to the components in July 1983. This requirement is stated as policy in DOD Instruction 4140.35 dated June 30, 1987. At the time of the DOD audit none of the components' evaluation processes had used these mandatory entries enough for the auditors to draw a conclusion regarding their effectiveness, although the Army had progressed to the point of making the entries on the appropriate ratings.	We did not examine personnel rating during this review. Therefore, we cannot comment on the appropriateness of DOD's actions.
(c) Have top management provide clear guidance to depots and inventory managers that falsifying reporting of physical inventory performance and inventory accuracy results will not be tolerated and that, if found, the strongest disciplinary actions will be taken.	DOD concurred. OSD issued a statement to the components in July 1983 that reiterated the responsibility of logistics managers to ensure the accuracy of reported data on inventory control. The OSD response also stated that OSD would reemphasize to the components the requirement for accurately reporting physical inventory performance and inventory accuracy results.	DOD's actions are appropriate. We found no evidence of falsified inventory reports during this review.
(d) Identify the training needs of depot and inventory control point supply personnel and see that the training is provided.	DOD concurred. As of September 1984, OSD representatives were pursuing this initiative with representatives of the components to determine whether existing Army programs of instruction could be used as a basis for instruction in the other components.	During this review we found training was limited primarily to that associated with on-the-job training. For example, at TACOM we found training courses were not given because they had not been updated since 1982.

(continued)

[1] Navy's progress in improving physical inventory controls and the magnitude, causes, and impact of inventory record inaccuracies in the Army, Air Force, and Defense Logistics Agency (GAO/NSIAD-84-9, Nov. 4, 1983).

Recommendation	DOD Action	Current Status and our Evaluation
(e) Establish standard rewarehousing procedures that at a minimum will (1) limit the amount of materiel movement to the lowest possible level, (2) provide standard materiel movement controls to ensure that materiel location changes are reflected promptly on depot locator records, and (3) require that either quality sampling checks or complete location surveys be made following rehousing projects to insure that the new locations of rewarehoused materiel are reflected promptly and accurately on locator records.	DOD concurred. As of September 1984, representatives of OSD and the components were working to develop appropriate policy language to incorporate in DOD instruction 4140.35 and related procedural instructions to include in DOD 4140.22-M. DOD Instruction 4140.35 was reissued June 30, 1987. Military Standard Requisitioning Procedures standard 114 which was issued for comment in March 1987.	We did not examine rewarehousing as a part of this review. Therefore, we have no comments on the recommendation or current status of DOD's actions.
Recommendation 2. Expand the frequency and scope of quality control checks of work processes affecting inventory record accuracy at both depot and inventory management levels. At a minimum, expanded quality control programs should include weekly sampling checks of the quality of research efforts to identify and correct recurring error causes, as well as the validity of reconciliations of major physical inventory differences and reversals of physical inventory adjustments. Also, require that quality control results be reported to depot and inventory control point commanders and higher management levels and that a feedback system be established to ensure that problem areas repeatedly noted by quality checks are corrected promptly.	DOD concurred, although part of the corrective action described in DOD's response was related to causative research rather than quality control. Inventory control program staff visits in April, May, and June 1987 concentrated on infloat document control, location records, and internal controls.	We found quality control checks at both the ICP and the depot were ineffective or not being accomplished as required. For example, TACOM was not adequately performing quality control checks on the validating of reconciliations of major physical inventory adjustments. (See page 19.)
Recommendation 3. Require inventory management levels to report the results of causative research of physical inventory adjustments to higher management levels and establish a feedback system to ensure that recurring error causes are being identified and corrected. Also require results of causative research to affected depots and have the depots use the results to identify problem areas warranting expanded quality control coverage.	DOD concurred. DOD standard error cause codes have been prescribed. Changes in standard document formats, as a means of transmitting error cause data between DOD components, have been proposed to the components. Consequently, DOD may be able to require that these data be exchanged. DOD initiated a study in August 1987 to evaluate better ways of doing causative research.	The problem continues. We found that causative research was inadequate at all levels. (See page 20.)
Recommendation 4. Rescind recent policy changes that (1) increase the time frame for reversing physical inventory adjustments from 90 days to 1 year and (2) increase the dollar criterion for researching physical inventory adjustments for pilferable items from over $2,500 to over $4,000.	DOD concurred in the recommendation to rescind the increase of the time frame for reversing physical inventory adjustments, although the DOD has established more stringent conditions for permitting reversals of adjustments. No other DOD action was taken or planned. DOD concurred in the recommendation to rescind the increase of the dollar criterion. This planned change to DOD procedures has been withdrawn.	Although DOD increased its time frame for reversing physical inventory adjustments to 1 year, we believe it should make little difference if inventory managers adhere to the stringent conditions on reversals. DOD criteria prevents reversals of an original adjustment transaction if an inventory has been completed between the date of the original adjustment and the date the reversal is attempted.

(continued)

Recommendation	DOD Action	Current Status and our Evaluation
Recommendation 5. Direct the Air Force to comply with the intent of DOD's policy by limiting preadjustment research to reconciliation of physical differences caused by recent unprocessed transactions that occurred immediately before or during the physical inventory control period.	DOD nonconcurred, but did state that there would be a 30-day limit on preadjustment research effective October 1, 1984. As of early September 1984, DOD did not have a plan to implement a 30-day time limit on preadjustment research. The only 30-day limit prescribed in the procedural changes that became effective October 1, 1984, pertained to the maximum amount of time that a release denial could be held in suspense before being posted to the accountable record.	The recommendation does not apply to the Army.
Recommendation 6. Establish uniform standards for gross physical inventory dollar adjustment ratios based on the value of material inventoried. Also, establish uniform standards for reversals of physical inventory adjustments.	DOD initiated a study in March 1987 to evaluate better reporting processes.	Establishing standards would provide a reference point for measuring performance. Our review indicated that standards for reversals, in particular, are needed.
Recommendation 7. Require that reversals to physical inventory adjustments be viewed equally with physical inventory adjustments by DOD and its components in assessing overall inventory record accuracy performance.	DOD concurred and has revised its procedures to require the reporting of reversals starting in F.Y. 1985. The concurrence was qualified to state that although reversals would be visible, they would not be considered to be the same as adjustments.	The results of this review indicated DOD should reconsider its position as to whether reversals should be used in assessing inventory record accuracy performance. (See page 14.)
Recommendation 8. Require inspector general and inventory control review teams in the services and Defense Logistics Agency, as a part of their periodic annual inspections, to examine the quality of physical inventory variances and reversals of physical inventory adjustments. Also, require more frequent and in-depth service and Defense Logistics Agency coverage of wholesale physical inventory controls and inventory record accuracy by internal audit organizations.	DOD concurred. A DOD-wide audit was performed in partial fulfillment of this recommendation. This report was issued in August 1985. Each service and the Defense Logistic Agency had review groups whose purpose included reviews of the inventory programs. DOD Instruction 4140.35 now requires the DOD Inspector General to periodically review components' physical inventory controls as an element to be addressed in their annual internal controls assessment.	We continue to support the recommendation for more frequent reviews of the inventory management process by internal and external audit groups and inspectors.
Recommendation 9. Expand DOD's plans to develop procedural requirements and techniques to relate impact of physical inventory adjustments on requirements determination and procurement to include identification of adjustments affecting mission essential items. Also, require that data on physical inventory adjustments affecting requirements, procurements, and mission essential items be reported to DOD and included in the quarterly inventory control effectiveness report.	DOD concurred. In September 1984, the Joint Physical Inventory Working Group was assigned the task of exploring methods of determining the effect of adjustments on requirements computations and procurements. That group was also exploring the feasibility of relating out-of-stock conditions to mission readiness. OSD had not yet established the recommended reporting requirements, because the means of developing the necessary data had not been determined.	Although the issue was not addressed in this review, we believe that DOD's actions have merit and should be continued.

Appendix II

Activities Visited

Headquarters

- Army Materiel Command, Alexandria, Virginia

Wholesale Level

- Tank-Automotive Command, Warren, Michigan
- New Cumberland Army Depot, New Cumberland, Pennsylvania

Retail Level

- Headquarters, 4th Infantry Division and Fort Carson, Fort Carson, Colorado
- Directorate of Logistics, Fort Carson, Colorado
- Division Support Command, Division Materiel Management Center, Fort Carson, Colorado
- Army Western Command, Fort Shafter, Hawaii
- Headquarters, 25th Infantry Division (Light), Schofield Barracks, Hawaii
- Division Support Command, Division Materiel Management Office, Schofield Barracks, Hawaii
- Headquarters, 3d Armored Division, Frankfurt, West Germany
- 3d Armored Division, Division Support Command, Frankfurt, West Germany
- Main class IX common warehouse, Grossauheim, West Germany
- Main missile warehouse, Butzbach, West Germany
- Forward class IX common warehouse, Kirchgoens, West Germany

Appendix III

Our Estimate of the Record Accuracy, Dollar Variance, And Quantity Variance, at a 95-Percent Confidence Level, for TACOM-Managed Items at New Cumberland Army Depot

	Unit Price Strata						
General Information	$0.01 to $100	$100.01 to $5000	$5000.1 to $1,000	$1,000.01 to $10,000	$10,000.01 to $50,000	Over $50,000	Total
Sample line items selected	225	43	18	19	10	15	330
Total universe of line items	18,737	3,185	820	943	103	15	23,803
Inventory value of items (million)	$146.54	$103.18	$40.88	$91.13	$46.26	$25.02	$453.000
Record Accuracy Rate							
Number accurate records	7,661	1,481	410	794	61	4	10,412
Total record	18,737	3,185	820	943	103	15	23,803
Percent accurate records	40.9	46.5	50.0	84.2	59.2	26.7	43.7
Sample error records	403	229	103	141	21	0	577
Dollar Variance Rate							
Estimated dollar difference between actual and recorded inventory value (millions)	$4.22	$7.24	$6.06	$0.55	$11.68	$4.98	
Total recorded inventory (millions)	$146.54	$103.18	$40.88	$91.13	$46.26	$25.02	
Percent dollar variance in sample	2.9	7.0	14.8	0.6	25.2	39.9	
Sample error million dollars	$0.04	$0.34	$1.76	$0.00	$0.58	$0.00	
Quantity Variance Rate							
Estimated quantity difference between actual and recorded quantities	1,029,506	41,030	9,602	232	899	86	
Total quantity of items	20,570,668	561,704	60,511	38,497	3,109	239	
Percent quantity variance in sample	5.0	7.3	15.9	0.6	28.9	36.0	
Sample error units	26,706	2,191	2,858	0	39	0	

82-799 (216)